

## DIGITAL TRANSISTOR

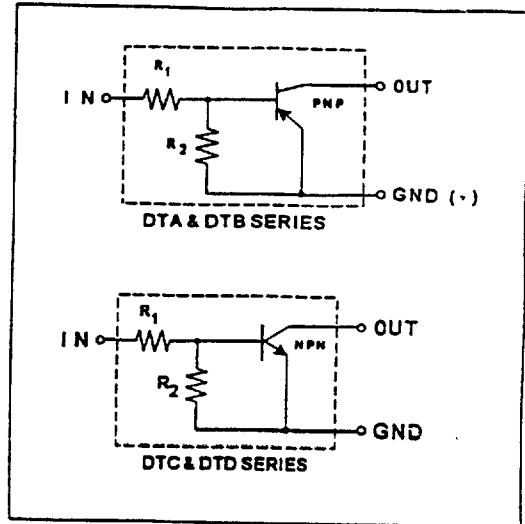
**APPLICATION:**

- Inverter, Driver & Interface Circuits

**FEATURES:**

- Replaces up to three parts (1 transistor & 2 resistors) with one part
- Available in a variety of surface mount or leaded (thru-hole) packages
- High packing density requires less board space
- Cost savings due to fewer components to purchase & stock & handle
- Improved reliability due to reduced number of components
- Available in PNP & NPN polarities
- Available in 100 mA & 500 mA devices
- Decreased parasitic effects
- Double diffused silicon, Epitaxial Planar Transistor with thin film internal bias resistors

**EQUIVALENT CIRCUITS:**



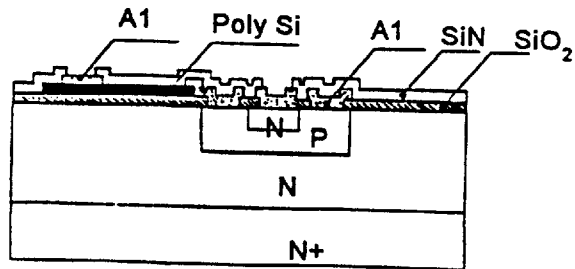
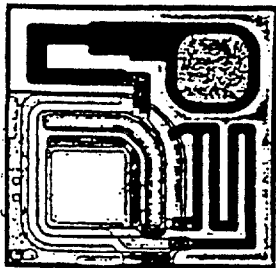
**MAXIMUM RATINGS:**

| PARAMETER                         | PNP                                 |             | NPN         |             | UNITS |
|-----------------------------------|-------------------------------------|-------------|-------------|-------------|-------|
|                                   | DTA                                 | DTB         | DTC         | DTD         |       |
| Power Supply Voltage ( $V_{cc}$ ) | 50                                  | 50          | 50          | 50          | Volts |
| Collector Current ( $I_c$ )       | 100                                 | 500         | 100         | 500         | mA    |
| Junction Temperature ( $T_j$ )    | +125                                | +125        | +125        | +125        | °C    |
| Storage Temperature ( $T_{stg}$ ) | -55 to +125                         | -55 to +125 | -55 to +125 | -55 to +125 | °C    |
| Power Dissipation ( $P_d$ )       | Rated by Package -- See Table Below |             |             |             | mW    |

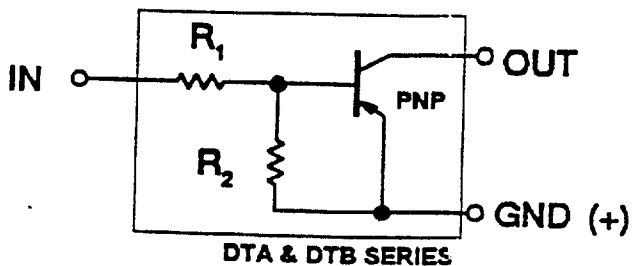
**MAXIMUM POWER DISSIPATION BY PACKAGE:  $P_d$  (mW)**

| Test Condition    | SURFACE MOUNT DEVICES |                |     |     | THRU-HOLE (LEADED) DEVICES |     |     |     |     |
|-------------------|-----------------------|----------------|-----|-----|----------------------------|-----|-----|-----|-----|
|                   | SST<br>(SOT-23)       | SMT<br>(SC-59) | UMT | EM3 | SPT<br>(TO-92S)            | ATR | ATV | FTR | FTL |
| Free Air/PCB      | 200                   | 200            | 200 | 150 | 300                        | 300 | 300 | 300 | 300 |
| Ceramic Substrate | 350                   | 350            | 350 | 250 | —                          | —   | —   | —   | —   |

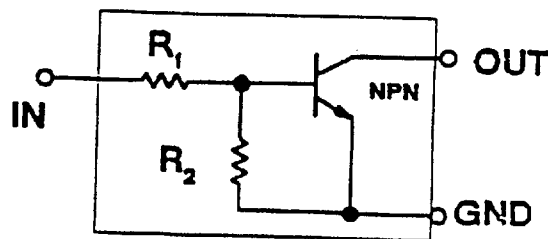
**DIGITAL TRANSISTOR CONSTRUCTION:**



• Digital Transistor Summary Table



DTA & DTB SERIES



DTC & DTD SERIES

| Resistor Values                      |                                   | PNP<br>$I_c(\text{Max}) = 100 \mu\text{A}$<br>2N3906              | PNP<br>$I_c(\text{Max}) = 600 \text{ mA}$<br>PN2907A/2N4403 | NPN<br>$I_c(\text{Max}) = 100 \text{ mA}$<br>2N3904                 | NPN<br>$I_c(\text{Max}) = 500 \text{ mA}$<br>PN2222A/2N4401 |
|--------------------------------------|-----------------------------------|---|---|---|---|
| $R_1$                                | $R_2$                             |   |   |   |   |
| 1/K<br>1/K<br>1/K                    | 1K<br>NONE<br>10K                 | -<br>DTA 113T<br>DTA 113Z   | DTB 113E<br>-<br>DTB 113Z                                   | -<br>-<br>DTC 113Z  | DTD 113E<br>-<br>DTD 113Z                                   |
| 10K<br>0<br>10K<br>10K<br>10K        | 10K<br>10K<br>NONE<br>4.7K<br>47K | DTA 114E<br>DTA 114G<br>DTA 114T<br>DTA 114W<br>DTA 114Y/DTA 214Y | DTB 114E<br>-<br>DTB 114T<br>-<br>-                         | DTC 114E<br>DTC 114G<br>DTC 114T/DTC 314T *<br>DTC 114W<br>DTC 114Y | DTD 114E<br>DTD 114G<br>DTD 114T<br>-<br>-                  |
| 100K<br>0<br>100K<br>100K            | 100K<br>100K<br>NONE<br>10K       | DTA 115E<br>DTA 115G<br>DTA 115T<br>DTA 115U                      | -<br>-<br>-<br>-  | DTC 115E<br>DTC 115G<br>DTC 115T<br>DTC 115U                        | -<br>-<br>-<br>-  |
| .22K                                 | 4.7K                              | -   | DTB 122J  | -   | DTD 122J  |
| 2.2K<br>2.2K<br>2.2K<br>2.2K         | 2.2K<br>NONE<br>47K<br>10K        | DTA 123E<br>-<br>DTA 123J<br>DTA 123Y                             | DTB 123E<br>DTB 123T<br>-<br>DTB 123Y                       | DTC 123E<br>DTC 323T *<br>DTC 123J<br>DTC 123Y                      | DTD 123E<br>DTD 123T<br>-<br>DTD 123Y                       |
| 2.7K                                 | 1K                                | DTA 1D3R  | -   | DTC 1D3R  | -   |
| 22K<br>0<br>22K<br>22K               | 22K<br>22K<br>NONE<br>47K         | DTA 124E<br>DTA 124G<br>DTA 124T<br>DTA 124X                      | -<br>-<br>-<br>-  | DTC 124E<br>DTC 124G<br>DTC 124T<br>DTC 124X                        | -<br>-<br>-<br>-  |
| 220K                                 | NONE                              | DTA 125T  | -   | DTC 125T  | -   |
| 3.3K                                 | 10K                               | -   | DTB 133H  | -   | DTD 133H  |
| 4.7K<br>4.7K<br>4.7K<br>4.7K<br>4.7K | 4.7K<br>NONE<br>10K<br>22K<br>47K | DTA 143E<br>DTA 143T<br>DTA 143X<br>DTA 143Y<br>DTA 143Z          | DTB 143E<br>DTB 143T<br>-<br>-<br>-                         | DTC 143E<br>DTC 143T/DTC 343T *<br>DTC 143X<br>DTC 143Y<br>DTC 143Z | DTD 143E<br>DTD 143T<br>-<br>-<br>-                         |
| 47K<br>0<br>47K<br>47K<br>47K        | 47K<br>47K<br>NONE<br>10K<br>22K  | DTA 144E<br>DTA 144G<br>DTA 144T<br>DTA 144V<br>DTA 144W          | -<br>-<br>-<br>-<br>-                                       | DTC 144E<br>DTC 144G<br>DTC 144T<br>DTC 144V<br>DTC 144W            | -<br>-<br>-<br>-<br>-                                       |
| 6.8K<br>6.8K                         | 6.8K<br>NONE                      | -<br>-  | -<br>DTB 163T   | DTC 363E *<br>DTC 363T *  | -<br>DTD 163T   |

\*  $I_c = 600 \text{ mA}$

NOTE: See "How to Order" for complete part number

www.DataSheet.in

DIGITAL TRANSISTOR: PNP

ELECTRICAL CHARACTERISTICS: 100 mA Series

| PART NUMBER | Vin(off) |         |         | Vin(on) |         |         | Vo(on)  |         |         | Ib      |          | Ic(OFF) |          |         | Vce(SAT) |         |         | Cob @ F=1MHz |          |          | CUT-OFF FREQ |         |          |         |         |
|-------------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|----------|---------|----------|---------|---------|--------------|----------|----------|--------------|---------|----------|---------|---------|
|             | Max (V)  | Vce (V) | Ic (mA) | Min (V) | Vce (V) | Ic (mA) | TYP (V) | Max (V) | Ic (mA) | Ib (mA) | Max (mA) | Vin (V) | Max (uA) | Voc (V) | Vin (V)  | Max (V) | Ic (mA) | Ib (mA)      | TYP (pF) | Max (pF) | Vcb (V)      | Ie (mA) | fT (MHz) | Vce (V) | Ic (mA) |
| DTA113Z     | 0.3      | 5       | 0.1     | 3       | 0.3     | 20      | 0.1     | 0.3     | 10      | 0.5     | 7.2      | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTA114E     | 0.5      | 5       | 0.1     | 3       | 0.3     | 10      | 0.1     | 0.3     | 10      | 0.5     | 0.88     | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTA114W     | 0.8      | 5       | 0.1     | 3       | 0.3     | 2       | 0.1     | 0.3     | 10      | 0.5     | 0.88     | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTA114Y     | 0.3      | 5       | 0.1     | 1.4     | 0.3     | 1       | 0.1     | 0.3     | 5       | 0.25    | 0.88     | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTA115E     | 0.5      | 5       | 0.1     | 3       | 0.3     | 1       | 0.1     | 0.3     | 5       | 0.25    | 0.15     | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTA115U     | 3.3      | 5       | 0.1     | 1.5     | 0.3     | 1       | 0.1     | 0.3     | 7       | 0.2     | 0.1      | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTA123E     | 0.5      | 5       | 0.1     | 3       | 0.3     | 20      | 0.1     | 0.3     | 10      | 0.5     | 3.8      | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTA123J     | 0.5      | 5       | 0.1     | 1.1     | 0.3     | 5       | 0.1     | 0.3     | 5       | 0.25    | 3.6      | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTA123Y     | 0.3      | 5       | 0.1     | 3       | 0.3     | 20      | 0.1     | 0.3     | 10      | 0.5     | 3.8      | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTA124E     | 0.5      | 5       | 0.1     | 3       | 0.2     | 5       | 0.1     | 0.3     | 10      | 0.5     | 0.36     | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTA124X     | 0.4      | 5       | 0.1     | 2.5     | 0.3     | 2       | 0.1     | 0.3     | 10      | 0.5     | 0.36     | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTA143E     | 0.5      | 5       | 0.1     | 3       | 0.3     | 20      | 0.1     | 0.3     | 10      | 0.5     | 1.8      | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTA143X     | 0.3      | 5       | 0.1     | 2.5     | 0.3     | 20      | 0.1     | 0.3     | 10      | 0.5     | 1.8      | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTA143Y     | 0.3      | 5       | 0.1     | 3       | 0.3     | 10      | 0.1     | 0.3     | 10      | 0.5     | 1.8      | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTA143Z     | 0.5      | 5       | 0.1     | 1.3     | 0.3     | 5       | 0.1     | 0.3     | 5       | 0.25    | 1.8      | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTA144E     | 0.5      | 5       | 0.1     | 3       | 0.3     | 2       | 0.1     | 0.3     | 10      | 0.5     | 0.18     | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTA144V     | 0.5      | 5       | 0.1     | 6       | 0.3     | 2       | 0.1     | 0.3     | 10      | 0.5     | 0.18     | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTA144W     | 0.8      | 5       | 0.1     | 4       | 0.3     | 2       | 0.1     | 0.3     | 10      | 0.5     | 0.16     | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTA214Y     | 0.3      | 5       | 0.1     | 1.4     | 0.3     | 1       | 0.1     | 0.3     | 50      | 2.5     | 0.88     | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTA1D3R     | 1.5      | 5       | 0.1     | 4       | 0.3     | 5       | 0.1     | 0.3     | 10      | 1       | 3.7      | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 250      | 10      | 5       |

| PART NUMBER | Vin(off) |         |         | Vin(on) |         |         | Vo(on)  |         |         | Ib      |          | Ic(OFF) |          |         | Vce(SAT) |         |         | Cob @ F=1MHz |          |          | CUT-OFF FREQ |         |          |         |         |
|-------------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|----------|---------|----------|---------|---------|--------------|----------|----------|--------------|---------|----------|---------|---------|
|             | Max (V)  | Vce (V) | Ic (mA) | Min (V) | Vce (V) | Ic (uA) | TYP (V) | Max (V) | Ic (mA) | Ib (mA) | Max (mA) | Vin (V) | Max (uA) | Voc (V) | Vin (V)  | Max (V) | Ic (mA) | Ib (mA)      | TYP (pF) | Max (pF) | Vcb (V)      | Ie (mA) | fT (MHz) | Vce (V) | Ic (mA) |
| DTA143T     | 0.3      | 5       | 0.1     | 3       | 0.3     | 20      | 0.1     | 0.3     | 10      | 0.5     | 7.2      | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTA114T     | 0.5      | 5       | 0.1     | 3       | 0.3     | 10      | 0.1     | 0.3     | 10      | 0.5     | 0.88     | 5       | 10       | 30      | 0        | 0.3     | 10      | 1            | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTA124T     | 0.8      | 5       | 0.1     | 3       | 0.3     | 2       | 0.1     | 0.3     | 5       | 0.25    | 1.8      | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.5          | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTA144T     | 0.3      | 5       | 0.1     | 1.4     | 0.3     | 1       | 0.1     | 0.3     | 5       | 0.25    | 0.88     | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.5          | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTA115T     | 0.5      | 5       | 0.1     | 3       | 0.3     | 1       | 0.1     | 0.3     | 5       | 0.25    | 0.15     | 5       | 10       | 30      | 0        | 0.3     | 1       | 0.1          | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTA125T     | 0.8      | 5       | 0.1     | 3       | 0.3     | 1       | 0.1     | 0.3     | 5       | 0.25    | 0.33     | 5       | 10       | 30      | 0        | 0.3     | 0.5     | 0.05         | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTA113T     | 0.5      | 5       | 0.1     | 3       | 0.3     | 20      | 0.1     | 0.3     | 10      | 0.5     | 3.8      | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.2          | 3        | 6        | 10           | 0       | 250      | 10      | 5       |

| PART NUMBER | Vin(off) |         |         | Vin(on) |         |         | Vo(on)  |         |         | Ib      |          | Ic(OFF) |          |         | Vce(SAT) |         |         | Cob @ F=1MHz |          |          | CUT-OFF FREQ |         |          |         |         |
|-------------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|----------|---------|----------|---------|---------|--------------|----------|----------|--------------|---------|----------|---------|---------|
|             | Max (V)  | Vce (V) | Ic (mA) | Min (V) | Vce (V) | Ic (uA) | TYP (V) | Max (V) | Ic (mA) | Ib (mA) | Max (mA) | Vin (V) | Max (uA) | Voc (V) | Vin (V)  | Max (V) | Ic (mA) | Ib (mA)      | TYP (pF) | Max (pF) | Vcb (V)      | Ie (mA) | fT (MHz) | Vce (V) | Ic (mA) |
| DTA114G     | 0.3      | 5       | 0.1     | 3       | 0.3     | 20      | 0.1     | 0.3     | 10      | 0.5     | 7.2      | 5       | 10       | 30      | 0        | 0.3     | 10      | 0.5          | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTA124G     | 0.5      | 5       | 0.1     | 3       | 0.3     | 10      | 0.1     | 0.3     | 10      | 0.5     | 0.88     | 5       | 10       | 30      | 0        | 0.3     | 10      | 0.5          | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTA144G     | 0.8      | 5       | 0.1     | 3       | 0.3     | 2       | 0.1     | 0.3     | 5       | 0.25    | 1.8      | 5       | 10       | 30      | 0        | 0.3     | 10      | 0.5          | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTA115G     | 0.3      | 5       | 0.1     | 1.4     | 0.3     | 1       | 0.1     | 0.3     | 5       | 0.25    | 0.88     | 5       | 10       | 30      | 0        | 0.3     | 10      | 0.25         | 3        | 6        | 10           | 0       | 250      | 10      | 5       |
| DTB114G     | 0.3      | 5       | 0.1     | 3       | 0.3     | 20      | 0.1     | 0.3     | 10      | 0.5     | 7.2      | 5       | 10       | 30      | 0        | 0.3     | 50      | 2.5          | 3        | 6        | 10           | 0       | 200      | 10      | 5       |

ELECTRICAL CHARACTERISTICS: 500 mA Series

| PART NUMBER | Vin(off) |         |         | Vin(on) |         |         | Vo(on)  |         |         | Ib      |          | Ic(OFF) |          |         | Vce(SAT) |         |         | Cob @ F=1MHz |          |          | CUT-OFF FREQ |         |          |         |         |
|-------------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|----------|---------|----------|---------|---------|--------------|----------|----------|--------------|---------|----------|---------|---------|
|             | Max (V)  | Vce (V) | Ic (mA) | Min (V) | Vce (V) | Ic (uA) | TYP (V) | Max (V) | Ic (mA) | Ib (mA) | Max (mA) | Vin (V) | Max (uA) | Voc (V) | Vin (V)  | Max (V) | Ic (mA) | Ib (mA)      | TYP (pF) | Max (pF) | Vcb (V)      | Ie (mA) | fT (MHz) | Vce (V) | Ic (mA) |
| DTB113E     | 0.5      | 5       | 0.1     | 3       | 0.3     | 20      | 0.1     | 0.3     | 50      | 2.5     | 7.2      | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 200      | 10      | 50      |
| DTB113Z     | 0.3      | 5       | 0.1     | 3       | 0.3     | 20      | 0.1     | 0.3     | 50      | 2.5     | 7.2      | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 200      | 10      | 50      |
| DTB114E     | 0.5      | 5       | 0.1     | 3       | 0.3     | 10      | 0.1     | 0.3     | 50      | 2.5     | 0.88     | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 200      | 10      | 50      |
| DTB123E     | 0.5      | 5       | 0.1     | 3       | 0.3     | 20      | 0.1     | 0.3     | 50      | 2.5     | 3.8      | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 200      | 10      | 50      |
| DTB143E     | 0.5      | 5       | 0.1     | 3       | 0.3     | 20      | 0.1     | 0.3     | 50      | 2.5     | 1.8      | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 200      | 10      | 50      |
| DTB123Y     | 0.3      | 5       | 0.1     | 2       | 0.3     | 20      | 0.1     | 0.3     | 50      | 2.5     | 3.6      | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 200      | 10      | 50      |
| DTB122J     | 0.3      | 5       | 0.1     | 2       | 0.3     | 30      | 0.1     | 0.3     | 50      | 2.5     | 4.5      | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 200      | 10      | 50      |
| DTB133H     | 0.3      | 5       | 0.1     | 2       | 0.3     | 20      | 0.1     | 0.3     | 50      | 2.5     | 2.4      | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 200      | 10      | 50      |

| PART NUMBER | Vin(off) |         |         | Vin(on) |         |         | Vo(on)  |         |         | Ib      |          | Ic(OFF) |          |         | Vce(SAT) |         |         | Cob @ F=1MHz |          |          | CUT-OFF FREQ |         |          |         |         |
|-------------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|----------|---------|----------|---------|---------|--------------|----------|----------|--------------|---------|----------|---------|---------|
|             | Max (V)  | Vce (V) | Ic (mA) | Min (V) | Vce (V) | Ic (uA) | TYP (V) | Max (V) | Ic (mA) | Ib (mA) | Max (mA) | Vin (V) | Max (uA) | Voc (V) | Vin (V)  | Max (V) | Ic (mA) | Ib (mA)      | TYP (pF) | Max (pF) | Vcb (V)      | Ie (mA) | fT (MHz) | Vce (V) | Ic (mA) |
| DTB123T     | 0.3      | 5       | 0.1     | 3       | 0.3     | 20      | 0.1     | 0.3     | 10      | 0.5     | 7.2      | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 200      | 10      | 5       |
| DTB143T     | 0.5      | 5       | 0.1     | 3       | 0.3     | 10      | 0.1     | 0.3     | 10      | 0.5     | 0.88     | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 200      | 10      | 5       |
| DTB163T     | 0.8      | 5       | 0.1     | 3       | 0.3     | 2       | 0.1     | 0.3     | 5       | 0.25    | 1.8      | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 200      | 10      | 5       |
| DTB114T     | 0.3      | 5       | 0.1     | 1.4     | 0.3     | 1       | 0.1     | 0.3     | 5       | 0.25    | 0.88     | 5       | 10       | 30      | 0        | 0.3     | 5       | 0.25         | 3        | 6        | 10           | 0       | 200      | 10      | 5       |

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**DIGITAL TRANSISTOR: PNP**

**ELECTRICAL CHARACTERISTICS: 100 mA Series**

| PART NUMBER | TYP | RESISTOR VALUE |        | R2/R1 |      |      | Ic Max (mA) | INPUT VOLT |     | hFE |         | Icbo    |     | Icbo    |     | PART MARK | DIE TYPE | EQUIVALENT CIRCUIT |         |
|-------------|-----|----------------|--------|-------|------|------|-------------|------------|-----|-----|---------|---------|-----|---------|-----|-----------|----------|--------------------|---------|
|             |     | R1 (K)         | R2 (K) | Min   | Typ  | Max  |             | Min        | Max | Min | Vce (V) | Ic (mA) | Max | Vcb (V) | Max |           |          |                    | Vce (V) |
| DTA113Z     | PNP | 1.0            | 10.0   | 8     | 10   | 12   | 100         | -10        | 5   | 33  | 5       | 5       | 0.5 | 50      | 0.5 | 50        | E11/111  | A776               |         |
| DTA114E     | PNP | 10.0           | 10.0   | 0.8   | 1    | 1.2  | 100         | -40        | 10  | 30  | 5       | 5       | 0.5 | 50      | 0.5 | 50        | 14       | A768               |         |
| DTA114W     | PNP | 10.0           | 4.7    | 0.37  | 0.47 | 0.57 | 100         | -30        | 10  | 24  | 5       | 10      | 0.5 | 50      | 0.5 | 50        | 74       | A778               |         |
| DTA114Y     | PNP | 10.0           | 47.0   | 3.7   | 4.7  | 5.7  | 100         | -40        | 8   | 68  | 5       | 5       | 0.5 | 50      | 0.5 | 50        | 54       | A762               |         |
| DTA115E*    | PNP | 100.0          | 100.0  | 0.8   | 1    | 1.2  | 100         | -40        | 10  | 82  | 5       | 5       | 0.5 | 50      | 0.5 | 50        | 19       | B861               |         |
| DTA115U     | PNP | 100.0          | 10.0   | 0.08  | 0.1  | 0.12 | 100         | -40        | 10  | 27  | 5       | 5       | 0.5 | 50      | 0.5 | 50        | E79/179  | B865               |         |
| DTA123E     | PNP | 2.2            | 2.2    | 0.8   | 1    | 1.2  | 100         | -12        | 10  | 20  | 5       | 20      | 0.5 | 50      | 0.5 | 50        | 12       | A733               |         |
| DTA123J     | PNP | 2.2            | 47.0   | 17    | 21   | 26   | 100         | -12        | 5   | 80  | 5       | 10      | 0.5 | 50      | 0.5 | 50        | E32/132  | A774               |         |
| DTA123Y     | PNP | 2.2            | 10.0   | 3.8   | 4.5  | 5.5  | 100         | -12        | 5   | 33  | 5       | 10      | 0.5 | 50      | 0.5 | 50        | 52       | A777               |         |
| DTA124E     | PNP | 22.0           | 22.0   | 0.8   | 1    | 1.2  | 100         | -40        | 10  | 56  | 5       | 5       | 0.5 | 50      | 0.5 | 50        | 15       | A781               |         |
| DTA124X     | PNP | 22.0           | 47.0   | 1.7   | 2.1  | 2.6  | 100         | -40        | 10  | 68  | 5       | 5       | 0.5 | 50      | 0.5 | 50        | 35       | A770               |         |
| DTA143E     | PNP | 4.7            | 4.7    | 0.8   | 1    | 1.2  | 100         | -30        | 10  | 20  | 5       | 10      | 0.5 | 50      | 0.5 | 50        | 13       | A788               |         |
| DTA143X     | PNP | 4.7            | 10.0   | 1.7   | 2.1  | 2.6  | 100         | -20        | 7   | 30  | 5       | 10      | 0.5 | 50      | 0.5 | 50        | 33       | A789               |         |
| DTA143Y     | PNP | 4.7            | 22.0   | 3.7   | 4.7  | 5.7  | 100         | -30        | 8   | 58  | 5       | 5       | 0.5 | 50      | 0.5 | 50        | 53       | A785               |         |
| DTA143Z     | PNP | 4.7            | 47.0   | 8     | 10   | 12   | 100         | -30        | 5   | 80  | 5       | 10      | 0.5 | 50      | 0.5 | 50        | E13/113  | A775               |         |
| DTA144E     | PNP | 7.0            | 47.0   | 0.8   | 1    | 1.2  | 100         | -40        | 15  | 68  | 5       | 5       | 0.5 | 50      | 0.5 | 50        | 16       | A782               |         |
| DTA144V     | PNP | 7.0            | 10.0   | 0.17  | 0.21 | 0.26 | 100         | -          | -   | 33  | 5       | 5       | 0.5 | 50      | 0.5 | 50        | E56/156  | A774               |         |
| DTA144W     | PNP | 47.0           | 22.0   | 0.37  | 0.47 | 0.57 | 100         | -40        | 10  | 56  | 5       | 5       | 0.5 | 50      | 0.5 | 50        | 76       | A767               |         |
| DTA214Y     | PNP | 10             | 47     | 3.7   | 4.7  | 5.7  | 100         | -40        | 6   | 68  | 5       | 5       | 0.5 | 50      | 0.5 | 50        | N14      | A762               |         |
| DTA1D3R     | PNP | 2.7            | 1.0    | 0.33  | 0.37 | 0.41 | 100         | -15        | 15  | 20  | 5       | 30      | 0.5 | 50      | 0.5 | 50        | K3B      | A784               |         |

| PART NUMBER | TYP | RESISTOR VALUE |        | Vcbo Max (V) | Vceo Max (V) | Vebo Max (V) | Ic Max (mA) | hFE |     | Icbo |         | Icbo    |     | PART MARK | DIE TYPE | EQUIVALENT CIRCUIT |         |      |
|-------------|-----|----------------|--------|--------------|--------------|--------------|-------------|-----|-----|------|---------|---------|-----|-----------|----------|--------------------|---------|------|
|             |     | R1 (K)         | R2 (K) |              |              |              |             | Min | Typ | Max  | Vce (V) | Ic (mA) | Max |           |          |                    | Vcb (V) | Max  |
| DTA143T     | PNP | 4.7            | NONE   | 50           | 50           | 5            | 100         | 100 | 250 | 600  | 5       | 1       | 0.5 | 50        | 0.5      | 4                  | 93      | A764 |
| DTA114T     | PNP | 10.0           | NONE   | 50           | 50           | 5            | 100         | 100 | 250 | 600  | 5       | 1       | 0.5 | 50        | 0.5      | 4                  | 94      | A765 |
| DTA124T     | PNP | 22.0           | NONE   | 50           | 50           | 5            | 100         | 100 | 250 | 600  | 5       | 1       | 0.5 | 50        | 0.5      | 4                  | 95      | A771 |
| DTA144T     | PNP | 47.0           | NONE   | 50           | 50           | 5            | 100         | 100 | 250 | 600  | 5       | 1       | 0.5 | 50        | 0.5      | 4                  | 96      | A772 |
| DTA115T     | PNP | 100.0          | NONE   | 50           | 50           | 5            | 100         | 100 | 250 | 600  | 5       | 1       | 0.5 | 50        | 0.5      | 4                  | 99      | B864 |
| DTA125T     | PNP | 200.0          | NONE   | 50           | 50           | 5            | 100         | 100 | 250 | 600  | 5       | 1       | 0.5 | 50        | 0.5      | 4                  | 9A      | B863 |
| DTA113T     | PNP | 1.0            | NONE   | 50           | 50           | 5            | 100         | 100 | 250 | 600  | 5       | 1       | 0.5 | 50        | 0.5      | 4                  | 91      | A786 |

| PART NUMBER | TYP | RESISTOR VALUE |        | Vcbo Max (V) | Vceo Max (V) | Vebo Max (V) | Ic Max (mA) | hFE |     | Icbo |         | Icbo    |     | PART MARK | DIE TYPE | EQUIVALENT CIRCUIT |         |      |
|-------------|-----|----------------|--------|--------------|--------------|--------------|-------------|-----|-----|------|---------|---------|-----|-----------|----------|--------------------|---------|------|
|             |     | R1 (K)         | R2 (K) |              |              |              |             | Min | Typ | Max  | Vce (V) | Ic (mA) | Max |           |          |                    | Vcb (V) | Max  |
| DTA114G     | PNP | 0              | 10.0   | 50           | 50           | 5            | 100         | 30  | -   | -    | 5       | 5       | 0.5 | 50        | 580      | 4                  | K14     | A780 |
| DTA124G     | PNP | 0              | 22.0   | 50           | 50           | 5            | 100         | 56  | -   | -    | 5       | 5       | 0.5 | 50        | 260      | 4                  | K15     | A781 |
| DTA144G     | PNP | 0              | 47.0   | 50           | 50           | 5            | 100         | 68  | -   | -    | 5       | 5       | 0.5 | 50        | 130      | 4                  | K16     | A782 |
| DTA115G     | PNP | 0              | 100.0  | 50           | 50           | 5            | 100         | 82  | -   | -    | 5       | 5       | 0.5 | 50        | 58       | 4                  | K19     | B862 |
| DTB114G     | PNP | 0              | 10.0   | 50           | 50           | 5            | 500         | 58  | -   | -    | 5       | 100     | 0.5 | 50        | 0.5      | 4                  | L14     | B726 |

**ELECTRICAL CHARACTERISTICS: 500 mA Series**

| PART NUMBER | TYP | RESISTOR VALUE |        | R2/R1 |      |      | Ic Max (mA) | INPUT VOLT |     | hFE |         | Icbo    |     | Icbo    |     | PART MARK | DIE TYPE | EQUIVALENT CIRCUIT |
|-------------|-----|----------------|--------|-------|------|------|-------------|------------|-----|-----|---------|---------|-----|---------|-----|-----------|----------|--------------------|
|             |     | R1 (K)         | R2 (K) | Min   | Typ  | Max  |             | Min        | Max | Min | Vce (V) | Ic (mA) | Max | Vcb (V) | Max |           |          |                    |
| DTB113E     | PNP | 1.0            | 1.0    | 0.8   | 1    | 1.2  | 500         | -10        | 10  | 33  | 5       | 50      | 0.5 | 50      | 0.5 | 50        | F11      | B717               |
| DTB113Z     | PNP | 1.0            | 10.0   | 8     | 10   | 12   | 500         | -10        | 5   | 56  | 5       | 50      | 0.5 | 50      | 0.5 | 50        | G11      | B718               |
| DTB114E     | PNP | 10.0           | 10.0   | 0.8   | 1    | 1.2  | 500         | -40        | 10  | 56  | 5       | 50      | 0.5 | 50      | 0.5 | 50        | F14      | B714               |
| DTB123E     | PNP | 2.2            | 2.2    | 0.8   | 1    | 1.2  | 500         | -12        | 10  | 39  | 5       | 50      | 0.5 | 50      | 0.5 | 50        | F12      | B712               |
| DTB143E     | PNP | 4.7            | 4.7    | 0.8   | 1    | 1.2  | 500         | -30        | 10  | 47  | 5       | 50      | 0.5 | 50      | 0.5 | 50        | F13      | B713               |
| DTB123Y     | PNP | 2.2            | 10.0   | 3.8   | 4.5  | 5.5  | 500         | -12        | 5   | 56  | 5       | 50      | 0.5 | 50      | 0.5 | 50        | F52      | B715               |
| DTB122J     | PNP | 0.22           | 4.7    | 17.1  | 21.3 | 25.6 | 500         | -5         | 5   | 47  | 5       | 50      | 0.5 | 50      | 0.5 | 50        | G3C      | B725               |
| DTB133H     | PNP | 3.3            | 10.0   | 2.4   | 3    | 3.7  | 500         | -20        | 8   | 56  | 5       | 50      | 0.5 | 50      | 0.5 | 50        | G98      | B719               |

| PART NUMBER | TYP | RESISTOR VALUE |        | Vcbo Max (V) | Vceo Max (V) | Vebo Max (V) | Ic Max (mA) | hFE |     | Icbo |         | Icbo    |     | PART MARK | DIE TYPE | EQUIVALENT CIRCUIT |         |      |
|-------------|-----|----------------|--------|--------------|--------------|--------------|-------------|-----|-----|------|---------|---------|-----|-----------|----------|--------------------|---------|------|
|             |     | R1 (K)         | R2 (K) |              |              |              |             | Min | Typ | Max  | Vce (V) | Ic (mA) | Max |           |          |                    | Vcb (V) | Max  |
| DTB123T     | PNP | 2.2            | NONE   | 50           | 50           | 5            | 500         | 100 | 250 | 600  | 5       | 50      | 0.5 | 50        | 0.5      | 4                  | E92     | B723 |
| DTB143T     | PNP | 4.7            | NONE   | 50           | 50           | 5            | 500         | 100 | 250 | 600  | 5       | 50      | 0.5 | 50        | 0.5      | 4                  | F03     | B720 |
| DTB163T     | PNP | 6.8            | NONE   | 50           | 50           | 5            | 500         | 100 | 250 | 600  | 5       | 50      | 0.5 | 50        | 0.5      | 4                  | E97     | B721 |
| DTB114T     | PNP | 10.0           | NONE   | 50           | 50           | 5            | 500         | 100 | 250 | 600  | 5       | 50      | 0.5 | 50        | 0.5      | 4                  | E94     | B722 |



**DIGITAL TRANSISTOR: NPN**  
**ELECTRICAL CHARACTERISTICS: 100 mA Series**

| PART NUMBER | Vin(off) |         |         | Vin(on) |         |         | Vo(on)  |         |         |         | Ib       |         | Ic(OFF)  |         |         | Vce(SAT) |         |         | Cob @ F=1MHz |          |         | CUT-OFF FREQ |          |         |         |
|-------------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|----------|---------|---------|----------|---------|---------|--------------|----------|---------|--------------|----------|---------|---------|
|             | Max (V)  | Vce (V) | Ic (mA) | Min (V) | Vce (V) | Ic (mA) | TYP (V) | Max (V) | Ic (mA) | Ib (mA) | Max (mA) | Vin (V) | Max (uA) | Voc (V) | Vin (V) | Max (V)  | Ic (mA) | Ib (mA) | TYP (pF)     | Max (pF) | Vcb (V) | Ic (mA)      | fT (MHz) | Vce (V) | Ic (mA) |
| DTC113Z     | 0.3      | 5       | 0.1     | 3       | 0.3     | 20      | 0.1     | 0.3     | 10      | 0.5     | 7.2      | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTC114E     | 0.5      | 5       | 0.1     | 3       | 0.3     | 10      | 0.1     | 0.3     | 10      | 0.5     | 0.88     | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTC114W     | 0.8      | 5       | 0.1     | 3       | 0.3     | 2       | 0.1     | 0.3     | 10      | 0.5     | 0.88     | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTC114Y     | 0.3      | 5       | 0.1     | 1.4     | 0.3     | 1       | 0.1     | 0.3     | 5       | 0.25    | 0.88     | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTC115E     | 0.5      | 5       | 0.1     | 3       | 0.3     | 1       | 0.1     | 0.3     | 5       | 0.25    | 0.15     | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTC115U     | 3.3      | 5       | 0.1     | 1.5     | 0.3     | 1       | 0.1     | 0.3     | 7       | 0.2     | 0.1      | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTC123E     | 0.5      | 5       | 0.1     | 3       | 0.3     | 20      | 0.1     | 0.3     | 10      | 0.5     | 3.8      | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTC123J     | 0.5      | 5       | 0.1     | 1.1     | 0.3     | 5       | 0.1     | 0.3     | 5       | 0.25    | 3.8      | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTC123Y     | 0.3      | 5       | 0.1     | 3       | 0.3     | 20      | 0.1     | 0.3     | 10      | 0.5     | 3.8      | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTC124E     | 0.5      | 5       | 0.1     | 3       | 0.2     | 5       | 0.1     | 0.3     | 10      | 0.5     | 0.36     | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTC124X     | 0.4      | 5       | 0.1     | 2.5     | 0.3     | 2       | 0.1     | 0.3     | 10      | 0.5     | 0.36     | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTC143E     | 0.5      | 5       | 0.1     | 3       | 0.3     | 20      | 0.1     | 0.3     | 10      | 0.5     | 1.8      | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTC143X     | 0.3      | 5       | 0.1     | 2.5     | 0.3     | 20      | 0.1     | 0.3     | 10      | 0.5     | 1.8      | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTC143Y     | 0.3      | 5       | 0.1     | 3       | 0.3     | 10      | 0.1     | 0.3     | 10      | 0.5     | 1.8      | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTC143Z     | 0.5      | 5       | 0.1     | 1.3     | 0.3     | 5       | 0.1     | 0.3     | 5       | 0.25    | 1.8      | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTC144E     | 0.5      | 5       | 0.1     | 3       | 0.3     | 2       | 0.1     | 0.3     | 10      | 0.5     | 0.18     | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTC144V     | 1.0      | 5       | 0.1     | 6       | 0.3     | 2       | 0.1     | 0.3     | 10      | 0.5     | 0.18     | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTC144W     | 0.8      | 5       | 0.1     | 4       | 0.3     | 2       | 0.1     | 0.3     | 10      | 0.5     | 0.16     | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTC214Y     | 0.3      | 5       | 0.1     | 1.4     | 0.3     | 1       | 0.1     | 0.3     | 50      | 2.5     | 0.88     | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTC103R     | 1.5      | 5       | 0.1     | 4       | 0.3     | 5       | 0.1     | 0.3     | 10      | 1       | 3.7      | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 250      | 10      | 5       |

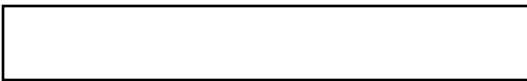
| PART NUMBER | Vin(off) |         |         | Vin(on) |         |         | Vo(on)  |         |         |         | Ib       |         | Ic(OFF)  |         |         | Vce(SAT) |         |         | Cob @ F=1MHz |          |         | CUT-OFF FREQ |          |         |         |
|-------------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|----------|---------|---------|----------|---------|---------|--------------|----------|---------|--------------|----------|---------|---------|
|             | Max (V)  | Vce (V) | Ic (mA) | Min (V) | Vce (V) | Ic (uA) | TYP (V) | Max (V) | Ic (mA) | Ib (mA) | Max (mA) | Vin (V) | Max (uA) | Voc (V) | Vin (V) | Max (V)  | Ic (mA) | Ib (mA) | TYP (pF)     | Max (pF) | Vcb (V) | Ic (mA)      | fT (MHz) | Vce (V) | Ic (mA) |
| DTC143T     | 0.3      | 5       | 0.1     | 3       | 0.3     | 20      | 0.1     | 0.3     | 10      | 0.5     | 7.2      | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTC114T     | 0.5      | 5       | 0.1     | 3       | 0.3     | 10      | 0.1     | 0.3     | 10      | 0.5     | 0.88     | 5       | 10       | 30      | 0       | 0.3      | 10      | 1       | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTC124T     | 0.8      | 5       | 0.1     | 3       | 0.3     | 2       | 0.1     | 0.3     | 5       | 0.25    | 1.8      | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.5     | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTC144T     | 0.3      | 5       | 0.1     | 1.4     | 0.3     | 1       | 0.1     | 0.3     | 5       | 0.25    | 0.88     | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.5     | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTC115T     | 0.5      | 5       | 0.1     | 3       | 0.3     | 1       | 0.1     | 0.3     | 5       | 0.25    | 0.15     | 5       | 10       | 30      | 0       | 0.3      | 1       | 0.1     | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTC125T     | 0.8      | 5       | 0.1     | 3       | 0.3     | 1       | 0.1     | 0.3     | 5       | 0.25    | 0.33     | 5       | 10       | 30      | 0       | 0.3      | 0.5     | 0.05    | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTC113T     | 0.5      | 5       | 0.1     | 3       | 0.3     | 20      | 0.1     | 0.3     | 10      | 0.5     | 3.8      | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.2     | 3            | 6        | 10      | 0            | 250      | 10      | 5       |

| PART NUMBER | Vin(off) |         |         | Vin(on) |         |         | Vo(on)  |         |         |         | Ib       |         | Ic(OFF)  |         |         | Vce(SAT) |         |         | Cob @ F=1MHz |          |         | CUT-OFF FREQ |          |         |         |
|-------------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|----------|---------|---------|----------|---------|---------|--------------|----------|---------|--------------|----------|---------|---------|
|             | Max (V)  | Vce (V) | Ic (mA) | Min (V) | Vce (V) | Ic (uA) | TYP (V) | Max (V) | Ic (mA) | Ib (mA) | Max (mA) | Vin (V) | Max (uA) | Voc (V) | Vin (V) | Max (V)  | Ic (mA) | Ib (mA) | TYP (pF)     | Max (pF) | Vcb (V) | Ic (mA)      | fT (MHz) | Vce (V) | Ic (mA) |
| DTC114G     | 0.3      | 5       | 0.1     | 3       | 0.3     | 20      | 0.1     | 0.3     | 10      | 0.5     | 7.2      | 5       | 10       | 30      | 0       | 0.3      | 10      | 0.5     | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTC124G     | 0.5      | 5       | 0.1     | 3       | 0.3     | 10      | 0.1     | 0.3     | 10      | 0.5     | 0.88     | 5       | 10       | 30      | 0       | 0.3      | 10      | 0.5     | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTC144G     | 0.8      | 5       | 0.1     | 3       | 0.3     | 2       | 0.1     | 0.3     | 5       | 0.25    | 1.8      | 5       | 10       | 30      | 0       | 0.3      | 10      | 0.5     | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTC115G     | 0.3      | 5       | 0.1     | 1.4     | 0.3     | 1       | 0.1     | 0.3     | 5       | 0.25    | 0.88     | 5       | 10       | 30      | 0       | 0.3      | 10      | 0.25    | 3            | 6        | 10      | 0            | 250      | 10      | 5       |
| DTD114G     | 0.3      | 5       | 0.1     | 3       | 0.3     | 20      | 0.1     | 0.3     | 10      | 0.5     | 7.2      | 5       | 10       | 30      | 0       | 0.3      | 50      | 2.5     | 3            | 6        | 10      | 0            | 200      | 10      | 5       |

**ELECTRICAL CHARACTERISTICS: 500 mA Series**

| PART NUMBER | Vin(off) |         |         | Vin(on) |         |         | Vo(on)  |         |         |         | Ib       |         | Ic(OFF)  |         |         | Vce(SAT) |         |         | Cob @ F=1MHz |          |         | CUT-OFF FREQ |          |         |         |
|-------------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|----------|---------|---------|----------|---------|---------|--------------|----------|---------|--------------|----------|---------|---------|
|             | Max (V)  | Vce (V) | Ic (mA) | Min (V) | Vce (V) | Ic (uA) | TYP (V) | Max (V) | Ic (mA) | Ib (mA) | Max (mA) | Vin (V) | Max (uA) | Voc (V) | Vin (V) | Max (V)  | Ic (mA) | Ib (mA) | TYP (pF)     | Max (pF) | Vcb (V) | Ic (mA)      | fT (MHz) | Vce (V) | Ic (mA) |
| DTD113E     | 0.5      | 5       | 0.1     | 3       | 0.3     | 20      | 0.1     | 0.3     | 50      | 2.5     | 7.2      | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 200      | 10      | 50      |
| DTD113Z     | 0.3      | 5       | 0.1     | 3       | 0.3     | 20      | 0.1     | 0.3     | 50      | 2.5     | 7.2      | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 200      | 10      | 50      |
| DTD114E     | 0.5      | 5       | 0.1     | 3       | 0.3     | 10      | 0.1     | 0.3     | 50      | 2.5     | 0.88     | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 200      | 10      | 50      |
| DTD123E     | 0.5      | 5       | 0.1     | 3       | 0.3     | 20      | 0.1     | 0.3     | 50      | 2.5     | 3.8      | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 200      | 10      | 50      |
| DTD143E     | 0.5      | 5       | 0.1     | 3       | 0.3     | 20      | 0.1     | 0.3     | 50      | 2.5     | 1.8      | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 200      | 10      | 50      |
| DTD123Y     | 0.3      | 5       | 0.1     | 2       | 0.3     | 20      | 0.1     | 0.3     | 50      | 2.5     | 3.6      | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 200      | 10      | 50      |
| DTD122J     | 0.3      | 5       | 0.1     | 2       | 0.3     | 30      | 0.1     | 0.3     | 50      | 2.5     | 4.5      | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 200      | 10      | 50      |
| DTD133H     | 0.3      | 5       | 0.1     | 2       | 0.3     | 20      | 0.1     | 0.3     | 50      | 2.5     | 2.4      | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 200      | 10      | 50      |

| PART NUMBER | Vin(off) |         |         | Vin(on) |         |         | Vo(on)  |         |         |         | Ib       |         | Ic(OFF)  |         |         | Vce(SAT) |         |         | Cob @ F=1MHz |          |         | CUT-OFF FREQ |          |         |         |
|-------------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|----------|---------|---------|----------|---------|---------|--------------|----------|---------|--------------|----------|---------|---------|
|             | Max (V)  | Vce (V) | Ic (mA) | Min (V) | Vce (V) | Ic (uA) | TYP (V) | Max (V) | Ic (mA) | Ib (mA) | Max (mA) | Vin (V) | Max (uA) | Voc (V) | Vin (V) | Max (V)  | Ic (mA) | Ib (mA) | TYP (pF)     | Max (pF) | Vcb (V) | Ic (mA)      | fT (MHz) | Vce (V) | Ic (mA) |
| DTD123T     | 0.3      | 5       | 0.1     | 3       | 0.3     | 20      | 0.1     | 0.3     | 10      | 0.5     | 7.2      | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 200      | 10      | 5       |
| DTD143T     | 0.5      | 5       | 0.1     | 3       | 0.3     | 10      | 0.1     | 0.3     | 10      | 0.5     | 0.88     | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 200      | 10      | 5       |
| DTD163T     | 0.8      | 5       | 0.1     | 3       | 0.3     | 2       | 0.1     | 0.3     | 5       | 0.25    | 1.8      | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 200      | 10      | 5       |
| DTD114T     | 0.3      | 5       | 0.1     | 1.4     | 0.3     | 1       | 0.1     | 0.3     | 5       | 0.25    | 0.88     | 5       | 10       | 30      | 0       | 0.3      | 5       | 0.25    | 3            | 6        | 10      | 0            | 200      | 10      | 5       |



DIGITAL TRANSISTOR: NPN  
ELECTRICAL CHARACTERISTICS: 100 mA Series

| PART NUMBER | TYP | RESISTOR VALUE |        | R2/R1 |      |      | Ic Max (mA) | INPUT VOLT |         | hFE |         | Icbo    |          | Icso    |          | PART MARK | DIE TYPE | EQUIVALENT CIRCUIT |         |
|-------------|-----|----------------|--------|-------|------|------|-------------|------------|---------|-----|---------|---------|----------|---------|----------|-----------|----------|--------------------|---------|
|             |     | R1 (K)         | R2 (K) | Min   | Typ  | Max  |             | Min (V)    | Max (V) | Min | Vce (V) | Ic (mA) | Max (uA) | Vcb (V) | Max (uA) |           |          |                    | Vce (V) |
| DTC113Z     | NPN | 1.0            | 10.0   | 8     | 10   | 12   | 100         | -10        | 5       | 33  | 5       | 5       | 0.5      | 50      | 0.5      | 50        | E12/121  | C776               |         |
| DTC114E     | NPN | 10.0           | 10.0   | 0.8   | 1    | 1.2  | 100         | -40        | 10      | 30  | 5       | 5       | 0.5      | 50      | 0.5      | 50        | 24       | C768               |         |
| DTC114W     | NPN | 10.0           | 4.7    | 0.37  | 0.47 | 0.57 | 100         | -30        | 10      | 24  | 5       | 10      | 0.5      | 50      | 0.5      | 50        | 84       | C778               |         |
| DTC114Y     | NPN | 10.0           | 47.0   | 3.7   | 4.7  | 5.7  | 100         | -40        | 6       | 68  | 5       | 5       | 0.5      | 50      | 0.5      | 50        | 64       | C762               |         |
| DTC115E     | NPN | 100.0          | 100.0  | 0.8   | 1    | 1.2  | 100         | -40        | 10      | 82  | 5       | 5       | 0.5      | 50      | 0.5      | 50        | 29       | D861               |         |
| DTC115U     | NPN | 100.0          | 10.0   | 0.08  | 0.1  | 0.12 | 100         | -40        | 10      | 27  | 5       | 5       | 0.5      | 50      | 0.5      | 50        | E89/189  | D865               |         |
| DTC123E     | NPN | 2.2            | 2.2    | 0.8   | 1    | 1.2  | 100         | -12        | 10      | 20  | 5       | 20      | 0.5      | 50      | 0.5      | 50        | 22       | C733               |         |
| DTC123J     | NPN | 2.2            | 47.0   | 17    | 21   | 26   | 100         | -12        | 5       | 80  | 5       | 10      | 0.5      | 50      | 0.5      | 50        | E42/142  | C774               |         |
| DTC123Y     | NPN | 2.2            | 10.0   | 3.6   | 4.5  | 5.5  | 100         | -12        | 5       | 33  | 5       | 10      | 0.5      | 50      | 0.5      | 50        | 62       | C777               |         |
| DTC124E     | NPN | 22.0           | 22.0   | 0.8   | 1    | 1.2  | 100         | -40        | 10      | 56  | 5       | 5       | 0.5      | 50      | 0.5      | 50        | 25       | C761               |         |
| DTC124X     | NPN | 22.0           | 47.0   | 1.7   | 2.1  | 2.6  | 100         | -40        | 10      | 68  | 5       | 5       | 0.5      | 50      | 0.5      | 50        | 45       | C770               |         |
| DTC143E     | NPN | 4.7            | 4.7    | 0.8   | 1    | 1.2  | 100         | -30        | 10      | 20  | 5       | 10      | 0.5      | 50      | 0.5      | 50        | 23       | C768               |         |
| DTC143X     | NPN | 4.7            | 10.0   | 1.7   | 2.1  | 2.6  | 100         | -20        | 7       | 30  | 5       | 10      | 0.5      | 50      | 0.5      | 50        | 43       | C769               |         |
| DTC143Y     | NPN | 4.7            | 22.0   | 3.7   | 4.7  | 5.7  | 100         | -30        | 6       | 56  | 5       | 5       | 0.5      | 50      | 0.5      | 50        | 63       | C785               |         |
| DTC143Z     | NPN | 4.7            | 47.0   | 8     | 10   | 12   | 100         | -30        | 5       | 80  | 5       | 10      | 0.5      | 50      | 0.5      | 50        | E23/123  | C775               |         |
| DTC144E     | NPN | 47.0           | 47.0   | 0.8   | 1    | 1.2  | 100         | -40        | 15      | 68  | 5       | 5       | 0.5      | 50      | 0.5      | 50        | 26       | C782               |         |
| DTC144V     | NPN | 47.0           | 10.0   | 0.17  | 0.21 | 0.26 | 100         | -          | -       | 33  | 5       | 5       | 0.5      | 50      | 0.5      | 50        | E66/166  | C774               |         |
| DTC144W     | NPN | 47.0           | 22.0   | 0.37  | 0.47 | 0.57 | 100         | -40        | 10      | 56  | 5       | 5       | 0.5      | 50      | 0.5      | 50        | 86       | C767               |         |
| DTC214Y     | NPN | 10             | 47     | 3.7   | 4.7  | 5.7  | 100         | -40        | 6       | 68  | 5       | 5       | 0.5      | 50      | 0.5      | 50        | N24      | C762               |         |
| DTC1D3R     | NPN | 2.7            | 1.0    | 0.33  | 0.37 | 0.41 | 100         | -15        | 15      | 20  | 5       | 30      | 0.5      | 50      | 0.5      | 50        | K4B      | C784               |         |

| PART NUMBER | TYP | RESISTOR VALUE |        | Vcbo Max (V) | Vceo Max (V) | Vebo Max (V) | Ic Max (mA) | hFE |     | Icbo |         | Icso    |          | PART MARK | DIE TYPE | EQUIVALENT CIRCUIT |         |          |         |
|-------------|-----|----------------|--------|--------------|--------------|--------------|-------------|-----|-----|------|---------|---------|----------|-----------|----------|--------------------|---------|----------|---------|
|             |     | R1 (K)         | R2 (K) |              |              |              |             | Min | Typ | Max  | Vce (V) | Ic (mA) | Max (uA) |           |          |                    | Vcb (V) | Max (uA) | Veb (V) |
| DTC143T     | NPN | 4.7            | NONE   | 50           | 50           | 5            | 100         | 100 | 250 | 600  | 5       | 1       | 0.5      | 50        | 0.5      | 4                  | 3       | C764     |         |
| DTC144T     | NPN | 10.0           | NONE   | 50           | 50           | 5            | 100         | 100 | 250 | 600  | 5       | 1       | 0.5      | 50        | 0.5      | 4                  | 4       | C785     |         |
| DTC124T     | NPN | 22.0           | NONE   | 50           | 50           | 5            | 100         | 100 | 250 | 600  | 5       | 1       | 0.5      | 50        | 0.5      | 4                  | 5       | C771     |         |
| DTC144T     | NPN | 47.0           | NONE   | 50           | 50           | 5            | 100         | 100 | 250 | 600  | 5       | 1       | 0.5      | 50        | 0.5      | 4                  | 6       | C772     |         |
| DTC115T     | NPN | 100.0          | NONE   | 50           | 50           | 5            | 100         | 100 | 250 | 600  | 5       | 1       | 0.5      | 50        | 0.5      | 4                  | 9       | D864     |         |
| DTC125T     | NPN | 200.0          | NONE   | 50           | 50           | 5            | 100         | 100 | 250 | 600  | 5       | 1       | 0.5      | 50        | 0.5      | 4                  | 0A      | D863     |         |
| DTC113T     | NPN | 1.0            | NONE   | 50           | 50           | 5            | 100         | 100 | 250 | 600  | 5       | 1       | 0.5      | 50        | 0.5      | 4                  | 1       | C786     |         |

| PART NUMBER | TYP | RESISTOR VALUE |        | Vcbo Max (V) | Vceo Max (V) | Vebo Max (V) | Ic Max (mA) | hFE |     | Icbo |         | Icso    |          | PART MARK | DIE TYPE | EQUIVALENT CIRCUIT |         |          |         |
|-------------|-----|----------------|--------|--------------|--------------|--------------|-------------|-----|-----|------|---------|---------|----------|-----------|----------|--------------------|---------|----------|---------|
|             |     | R1 (K)         | R2 (K) |              |              |              |             | Min | Typ | Max  | Vce (V) | Ic (mA) | Max (uA) |           |          |                    | Vcb (V) | Max (uA) | Veb (V) |
| DTC114G     | NPN | 0              | 10.0   | 50           | 50           | 5            | 100         | 30  | -   | -    | 5       | 5       | 0.5      | 50        | 580      | 4                  | K24     | C780     |         |
| DTC124G     | NPN | 0              | 22.0   | 50           | 50           | 5            | 100         | 56  | -   | -    | 5       | 5       | 0.5      | 50        | 260      | 4                  | K25     | C781     |         |
| DTC144G     | NPN | 0              | 47.0   | 50           | 50           | 5            | 100         | 68  | -   | -    | 5       | 5       | 0.5      | 50        | 130      | 4                  | K26     | C782     |         |
| DTC115G     | NPN | 0              | 100.0  | 50           | 50           | 5            | 100         | 82  | -   | -    | 5       | 5       | 0.5      | 50        | 58       | 4                  | K29     | D862     |         |
| DTD114G     | NPN | 0              | 10.0   | 50           | 50           | 5            | 500         | 56  | -   | -    | 5       | 100     | 0.5      | 50        | 0.5      | 4                  | L24     | D726     |         |

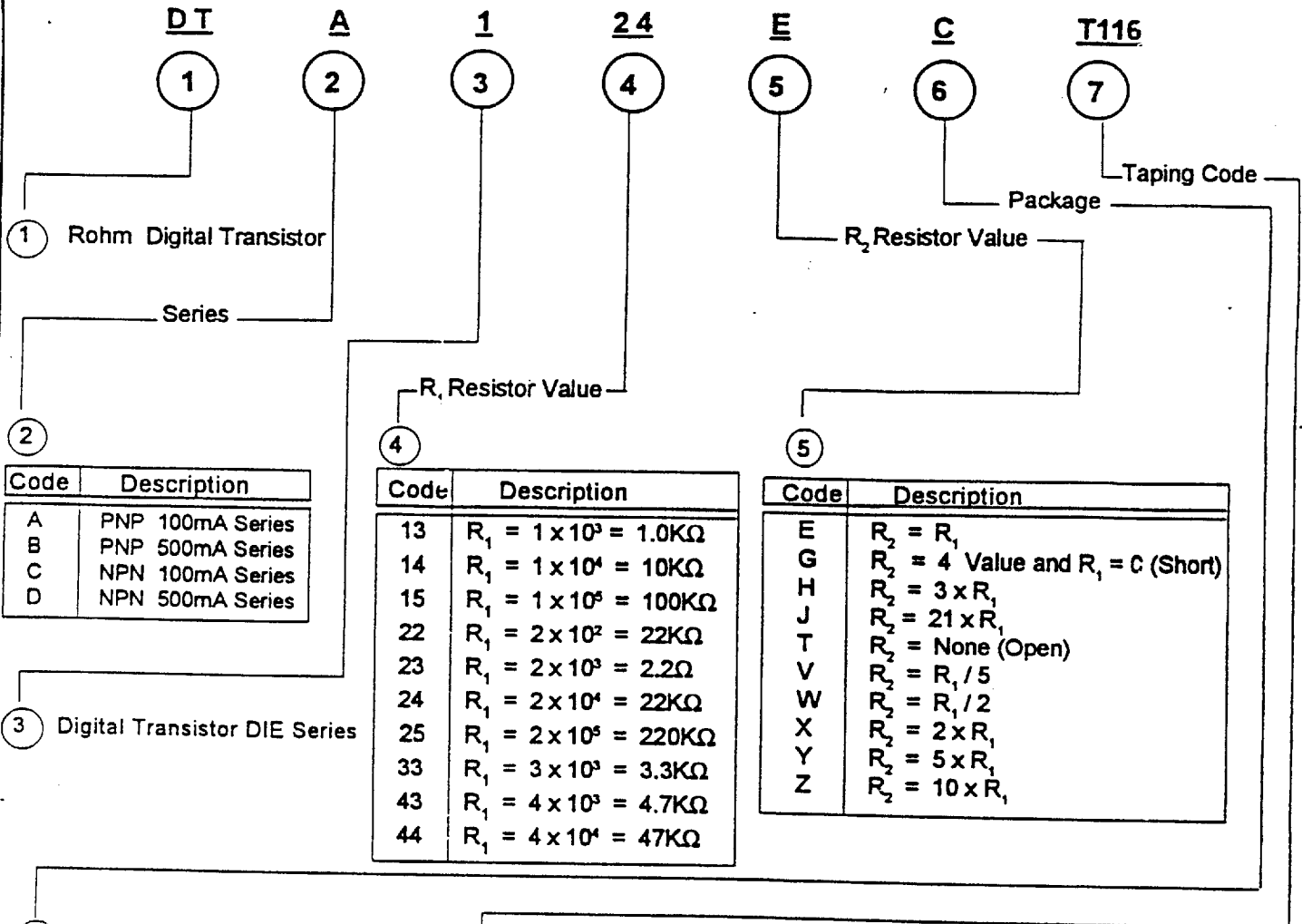
ELECTRICAL CHARACTERISTICS: 500 mA Series

| PART NUMBER | TYP | RESISTOR VALUE |        | R2/R1 |      |      | Ic Max (mA) | INPUT VOLT |         | hFE |         | Icbo    |          | Icso    |          | PART MARK | DIE TYPE | EQUIVALENT CIRCUIT |         |
|-------------|-----|----------------|--------|-------|------|------|-------------|------------|---------|-----|---------|---------|----------|---------|----------|-----------|----------|--------------------|---------|
|             |     | R1 (K)         | R2 (K) | Min   | Typ  | Max  |             | Min (V)    | Max (V) | Min | Vce (V) | Ic (mA) | Max (uA) | Vcb (V) | Max (uA) |           |          |                    | Vce (V) |
| DTD113E     | NPN | 1.0            | 1.0    | 0.8   | 1    | 1.2  | 500         | -10        | 10      | 33  | 5       | 50      | 0.5      | 50      | 0.5      | 50        | F21      | D717               |         |
| DTD113Z     | NPN | 1.0            | 10.0   | 8     | 10   | 12   | 500         | -10        | 5       | 56  | 5       | 50      | 0.5      | 50      | 0.5      | 50        | G21      | D718               |         |
| DTD114E     | NPN | 10.0           | 10.0   | 0.8   | 1    | 1.2  | 500         | -40        | 10      | 56  | 5       | 50      | 0.5      | 50      | 0.5      | 50        | F24      | D714               |         |
| DTD123E     | NPN | 2.2            | 2.2    | 0.8   | 1    | 1.2  | 500         | -12        | 10      | 39  | 5       | 50      | 0.5      | 50      | 0.5      | 50        | F22      | D712               |         |
| DTD143E     | NPN | 4.7            | 4.7    | 0.8   | 1    | 1.2  | 500         | -30        | 10      | 47  | 5       | 50      | 0.5      | 50      | 0.5      | 50        | F23      | D713               |         |
| DTD123Y     | NPN | 2.2            | 10.0   | 3.6   | 4.5  | 5.5  | 500         | -12        | 5       | 56  | 5       | 50      | 0.5      | 50      | 0.5      | 50        | F62      | D715               |         |
| DTD122J     | NPN | 0.22           | 4.7    | 17.1  | 21.3 | 25.6 | 500         | -5         | 5       | 47  | 5       | 50      | 0.5      | 50      | 0.5      | 50        | G4C      | D725               |         |
| DTD133H     | NPN | 3.3            | 10.0   | 2.4   | 3    | 3.7  | 500         | -20        | 6       | 56  | 5       | 50      | 0.5      | 50      | 0.5      | 50        | G06      | D719               |         |

| PART NUMBER | TYP | RESISTOR VALUE |        | Vcbo Max (V) | Vceo Max (V) | Vebo Max (V) | Ic Max (mA) | hFE |     | Icbo |         | Icso    |          | PART MARK | DIE TYPE | EQUIVALENT CIRCUIT |         |          |         |
|-------------|-----|----------------|--------|--------------|--------------|--------------|-------------|-----|-----|------|---------|---------|----------|-----------|----------|--------------------|---------|----------|---------|
|             |     | R1 (K)         | R2 (K) |              |              |              |             | Min | Typ | Max  | Vce (V) | Ic (mA) | Max (uA) |           |          |                    | Vcb (V) | Max (uA) | Veb (V) |
| DTD123T     | NPN | 2.2            | NONE   | 50           | 50           | 5            | 500         | 100 | 250 | 600  | 5       | 50      | 0.5      | 50        | 0.5      | 4                  | E02     | D723     |         |
| DTD143T     | NPN | 4.7            | NONE   | 50           | 50           | 5            | 500         | 100 | 250 | 600  | 5       | 50      | 0.5      | 50        | 0.5      | 4                  | F13     | D720     |         |
| DTD163T     | NPN | 6.8            | NONE   | 50           | 50           | 5            | 500         | 100 | 250 | 600  | 5       | 50      | 0.5      | 50        | 0.5      | 4                  | E07     | D721     |         |
| DTD114T     | NPN | 10.0           | NONE   | 50           | 50           | 5            | 500         | 100 | 250 | 600  | 5       | 50      | 0.5      | 50        | 0.5      | 4                  | E04     | D722     |         |

• Digital Transistors

HOW TO ORDER:



| Code | Description      |
|------|------------------|
| A    | PNP 100mA Series |
| B    | PNP 500mA Series |
| C    | NPN 100mA Series |
| D    | NPN 500mA Series |

| Code | Description                        |
|------|------------------------------------|
| 13   | $R_1 = 1 \times 10^3 = 1.0K\Omega$ |
| 14   | $R_1 = 1 \times 10^4 = 10K\Omega$  |
| 15   | $R_1 = 1 \times 10^5 = 100K\Omega$ |
| 22   | $R_1 = 2 \times 10^2 = 22K\Omega$  |
| 23   | $R_1 = 2 \times 10^3 = 2.2\Omega$  |
| 24   | $R_1 = 2 \times 10^4 = 22K\Omega$  |
| 25   | $R_1 = 2 \times 10^5 = 220K\Omega$ |
| 33   | $R_1 = 3 \times 10^3 = 3.3K\Omega$ |
| 43   | $R_1 = 4 \times 10^3 = 4.7K\Omega$ |
| 44   | $R_1 = 4 \times 10^4 = 47K\Omega$  |

| Code | Description                           |
|------|---------------------------------------|
| E    | $R_2 = R_1$                           |
| G    | $R_2 = 4$ Value and $R_1 = C$ (Short) |
| H    | $R_2 = 3 \times R_1$                  |
| J    | $R_2 = 21 \times R_1$                 |
| T    | $R_2 = \text{None (Open)}$            |
| V    | $R_2 = R_1 / 5$                       |
| W    | $R_2 = R_1 / 2$                       |
| X    | $R_2 = 2 \times R_1$                  |
| Y    | $R_2 = 5 \times R_1$                  |
| Z    | $R_2 = 10 \times R_1$                 |

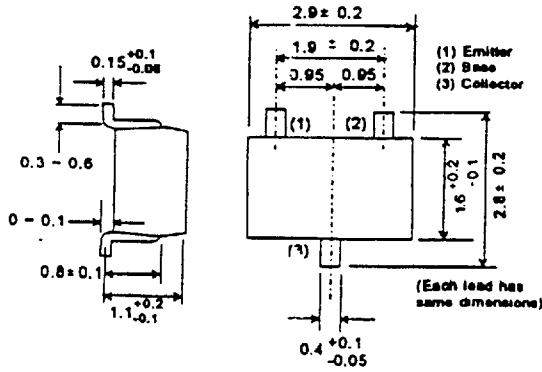
| SURFACE MOUNT  | PKG                   | DESCRIPTION                 | TAPING CODE             | DESCRIPTION  | PKG. QTY.  | PACKAGE SIZE                                      |
|----------------|-----------------------|-----------------------------|-------------------------|--|--|---|
|                | K                     | SMT (SC-59/JAPANESE SOT-23) |                         | *T146<br>*T147<br>*T246  | 1 PIN SIDE ON FEED HOLE SIDE<br>2 PIN SIDE ON FEED HOLE SIDE<br>1 PIN SIDE ON FEED HOLE SIDE | 3,000<br>3,000<br>10,000                          |
| C              | SST (EUROPEAN SOT-23) |                             | *T116<br>*T117<br>*T216 | 1 PIN SIDE ON FEED HOLE SIDE<br>2 PIN SIDE ON FEED HOLE SIDE<br>1 PIN SIDE ON FEED HOLE SIDE | 3,000<br>3,000<br>10,000   | 178mm/7" Reel<br>178mm/7" Reel<br>330 mm/13" Reel |
| U              | UMT (DTA & DTC ONLY)  |                             | *T106<br>T107           | 1 PIN SIDE ON FEED HOLE SIDE<br>2 PIN SIDE ON FEED HOLE SIDE                                 | 3,000<br>3,000   | 178 mm/7" Reel<br>178 mm/7" Reel                  |
| E              | EM3 (DTA & DTC ONLY)  |                             | *TL<br>TR               | 1 PIN SIDE ON FEED HOLE SIDE<br>2 PIN SIDE ON FEED HOLE SIDE                                 | 3,000<br>3,000   | 178 mm/7" Reel<br>178 mm/7" Reel                  |
| LEADED DEVICES | S                     | SPT (Short TO-92)           | *TP<br>NONE             | AMMO BOX RADIAL<br>BULK  | 5,000<br>2,000   | W-335/H-135/D-40(mm)<br>Polyethylene Bag          |
|                | V                     | ATV                         | *TV2<br>TV3             | AMMO BOX RADIAL<br>AMMO BOX RADIAL   | 2,500<br>2,500   | W-334/H-280/D-41(mm)<br>W-334/H-280/D-41(mm)      |
|                | L                     | FTL                         | *TL2<br>TL3             | AMMO BOX RADIAL<br>AMMO BOX RADIAL   | 2,500<br>2,500   | W-334/H-280/D-41(mm)<br>W-334/H-280/D-41(mm)      |
|                | F                     | FTR<br><i>Discontinued</i>  | *NONE<br>C1             | BULK<br>TUBE   | 2,000<br>8,000   | Polyethylene Bag<br>L-565/W-4.2/H-11.5(mm)        |
|                | A                     | ATR<br><i>Discontinued</i>  | *NONE<br>C2             | BULK<br>TUBE   | 2,000<br>8,000   | Polyethylene Bag<br>L-565/W-4.2/H-12.6(mm)        |
|                |                       |                             |                         |  |  |   |

Note: SOT-23, SC-59 and SPT packages are standard products.

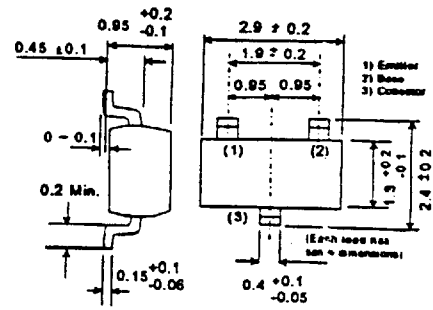
\* Standard Taping Codes

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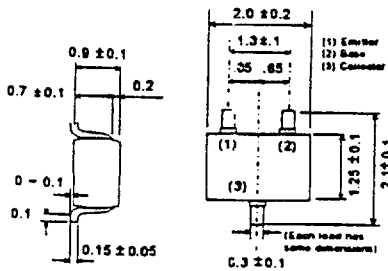
• Surface Mount Packages: Unit (mm)



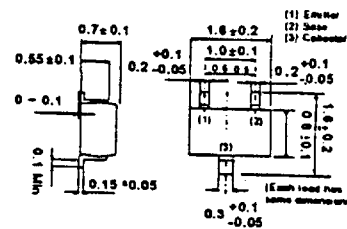
SMT (SC-59/Japanese SOT-23)



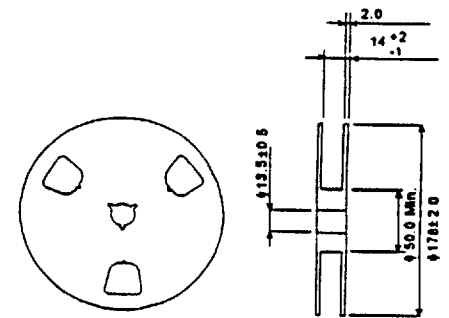
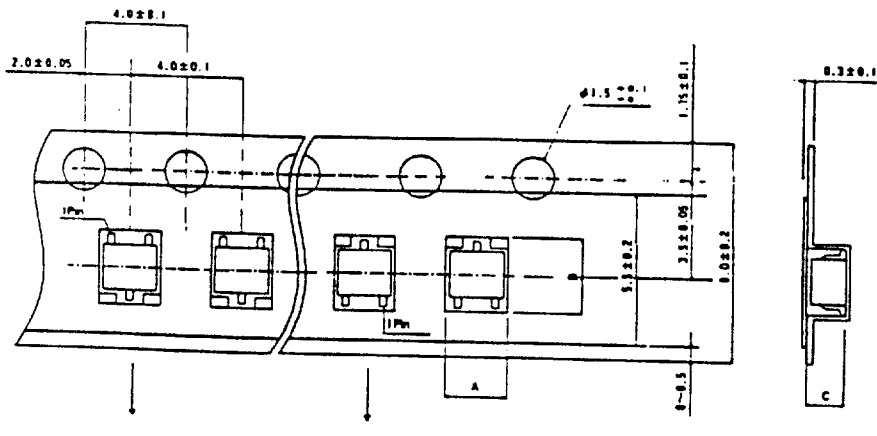
SST (European SOT-23)



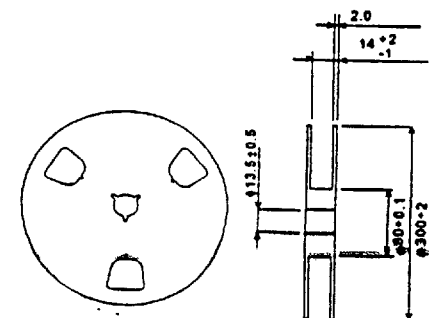
UMT



EM3



178 mm/7" Reel



330 mm/13" Reel

| Package | Code |
|---------|------|
| SMT     | T147 |
| SST     | T117 |
| UMT     | T107 |
| EM3     | TR   |

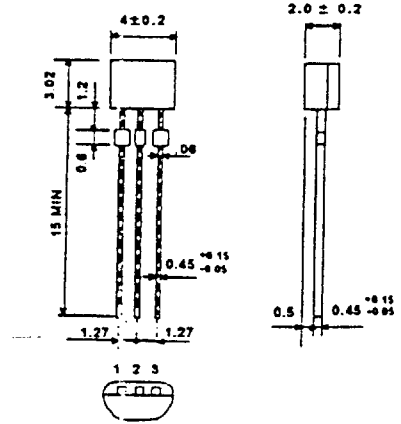
| Package | Code      |
|---------|-----------|
| SMT     | T146/T246 |
| SST     | T116/T216 |
| UMT     | T106/T206 |
| EM3     | TL        |

| Package | Size    |         |          |
|---------|---------|---------|----------|
|         | A       | B       | C        |
| SMT     | 3.1±0.2 | 3.2±0.2 | 1.35±0.1 |
| SST     | 3.1±0.2 | 2.8±0.2 | 1.25±0.2 |
| UMT     | 2.2±0.1 | 2.4±0.1 | 1.15±0.1 |
| EM3     | 1.8±0.1 | 1.8±0.2 | 0.9±0.2  |

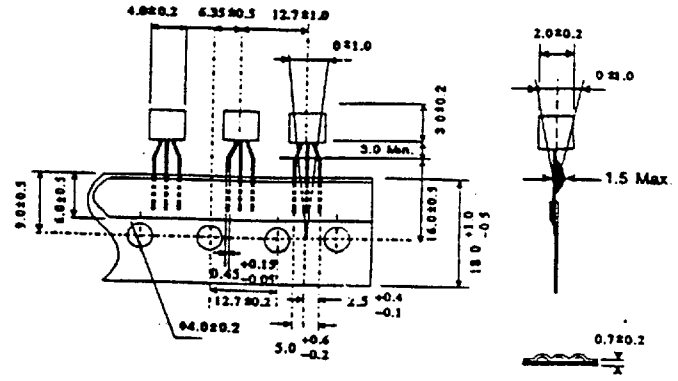
Tape and Reel Dimensions



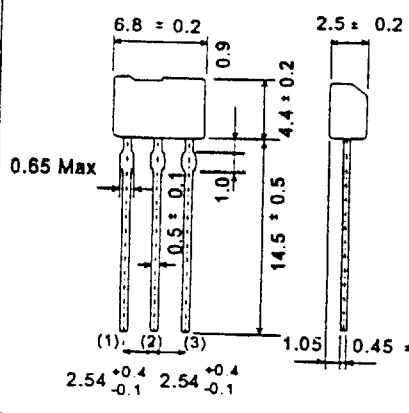
Leaded (thru-hole) Packages



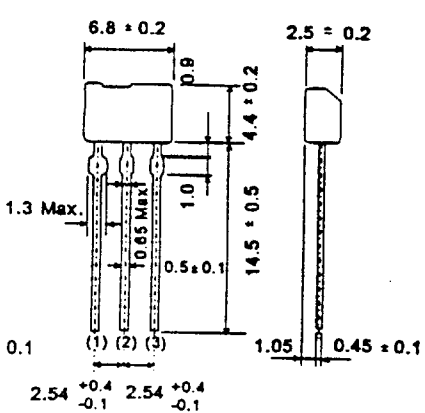
SPT(TO-92S) Package



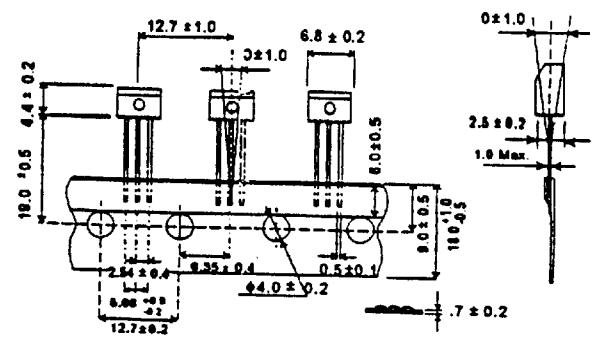
Ammo Box Taping Dimensions



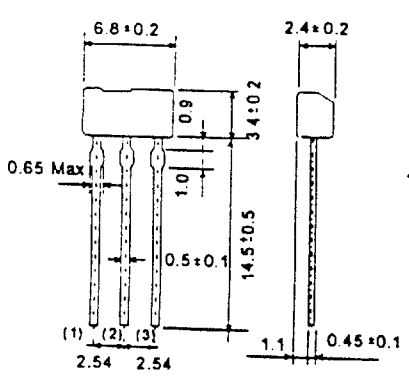
ATV(TV2 Style) Package



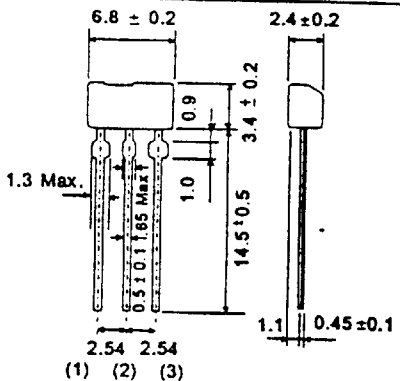
ATV(TV3 Style) Package



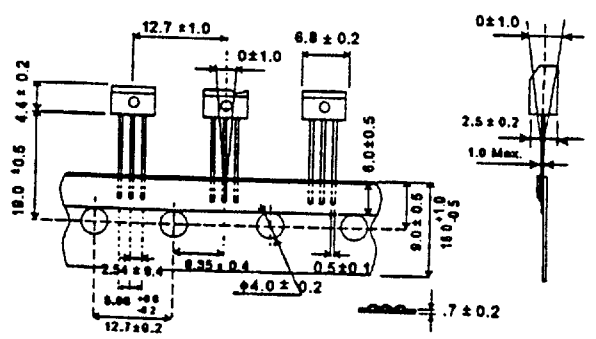
Ammo Box Taping Dimensions



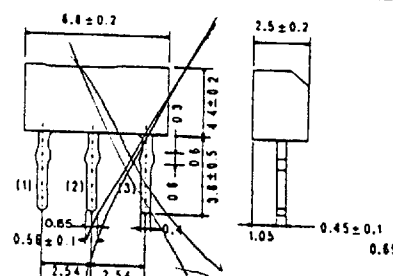
FTL(TL2 Style) Package



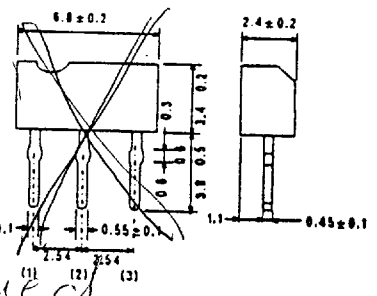
FTL(TL3 Style) Package



Ammo Box Taping Dimensions



FTR Package



ATR Package

*Discontinued*

| PKG.        | TAPING CODE | DESCRIPTION                | PKG. QTY. |
|-------------|-------------|----------------------------|-----------|
| SPT(TO-92S) | TP          | AMMO BOX RADIAL (Standard) | 5,000     |
|             | NONE        | BULK                       | 2,000     |
| ATV         | TV2         | AMMO BOX RADIAL (Standard) | 2,500     |
|             | TV3         | AMMO BOX RADIAL            | 2,500     |
| FTL         | TL2         | AMMO BOX RADIAL (Standard) | 2,500     |
|             | TL3         | AMMO BOX RADIAL            | 2,500     |
| FTR         | NONE        | BULK (Standard)            | 2,000     |
| ATR         | OT          | TUBE                       | 8,000     |
|             | OT          | BULK (Standard)            | 2,000     |
|             |             | TUBE                       | 8,000     |

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