

## NPN DARLINGTON POWER SILICON TRANSISTOR

Qualified per MIL-PRF-19500/504

### Devices

2N6283

2N6284

### Qualified Level

JAN  
JANTX  
JANTXV

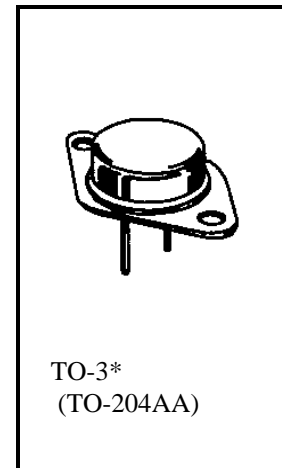
### MAXIMUM RATINGS

| Ratings  | Symbol         | 2N6583                  | 2N6284 | Unit        |
|--|----------------|-------------------------|--------|-------------|
| Collector-Emitter Voltage                      | $V_{CEO}$      | 80                      | 100    | Vdc         |
| Collector-Base Voltage                         | $V_{CBO}$      | 80                      | 100    | Vdc         |
| Emitter-Base Voltage                           | $V_{EBO}$      | 7.0                     |        | Vdc         |
| Base Current                                   | $I_B$          | 0.5                     |        | Adc         |
| Collector Current                              | $I_C$          | 20                      |        | Adc         |
| Total Power Dissipation <sup>(1)</sup>         | $P_T$          | @ $T_C = +25^{\circ}C$  | 175    | W           |
|  |                | @ $T_C = +100^{\circ}C$ | 87.5   | W           |
| Operating & Storage Junction Temperature Range | $T_J, T_{stg}$ | -65 to +200             |        | $^{\circ}C$ |

### THERMAL CHARACTERISTICS

| Characteristics                      | Symbol          | Max.  | Unit          |
|--------------------------------------|-----------------|-------|---------------|
| Thermal Resistance, Junction-to-Case | $R_{\theta JC}$ | 0.857 | $^{\circ}C/W$ |

1) Derate linearly @ 1.17 W/ $^{\circ}C$  above  $T_C > +25^{\circ}C$



\*See appendix A for package outline

### ELECTRICAL CHARACTERISTICS ( $T_C = 25^{\circ}C$ unless otherwise noted)

| Characteristics | Symbol | Min. | Max. | Unit |
|-----------------|--------|------|------|------|
|-----------------|--------|------|------|------|

### OFF CHARACTERISTICS

|   |                  |               |            |      |
|---|------------------|---------------|------------|------|
| Collector-Emitter Breakdown Voltage<br>$I_C = 100 \text{ mAdc}$   | 2N6283<br>2N6284 | $V_{(BR)CEO}$ | 80<br>100  | Vdc  |
| Collector-Emitter Cutoff Current<br>$V_{CE} = 40 \text{ Vdc}$<br>$V_{CE} = 50 \text{ Vdc}$  | 2N6283<br>2N6284 | $I_{CEO}$     | 1.0<br>1.0 | mAdc |
| Collector-Emitter Cutoff Current<br>$V_{CE} = 80 \text{ Vdc}, V_{BE} = 1.5 \text{ Vdc}$<br>$V_{CE} = 100 \text{ Vdc}, V_{BE} = 1.5 \text{ Vdc}$ | 2N6283<br>2N6284 | $I_{CEX}$     | 5.0<br>5.0 | mAdc |
| Emitter-Base Cutoff Current<br>$V_{EB} = 7.0 \text{ Vdc}$   |                  | $I_{EBO}$     | 2.5        | mAdc |

