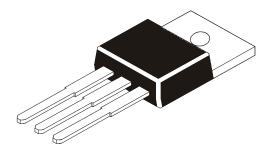




PNP SILICON EPITAXIAL POWER TRANSISTORS

C45C5,11 TO-220



Designed for Various Specific and General Purpose Applications.

ABSOLUTE MAXIMUM RATINGS(Ta=25deg C)

| DESCRIPTION | SYMBOL | C45C5 | C45C11 | UNIT |
|--|----------|-------------|------------|-------|
| Collector -Emitter Voltage | VCEO | 45 | 80 | V |
| Collector -Emitter Voltage Collector -Emitter Voltage | VCES | 45 55 | 90 | V |
| Emitter Base Voltage | VEBO | 5 | 5 | V |
| Collector Current Continuous | IC | 4 | 4 | Α |
| Peak* | ICM | 6 | 6 | Α |
| Base Current | IB | 2 | 2 | Α |
| Power Dissipation @ Ta=25 deg C | PD | 1.67 | 1.67 | W |
| Power Dissipation @ Tc=25 deg C | | 30 | 30 | W |
| Operating and Storage Junction | Tj, Tstg | -55 to +150 | 55 to +150 | deg C |
| Temprature Range | | | | |
| THERMAL RESISTANCE | | | | |
| Junction to Ambient | Rth(j-a) | 75 | 75 | deg C |
| Junction to Case | Rth(j-c) | 4.2 | 4.2 | deg C |

| ELECTRICAL CHARACTERISTICS (TC=25 | deg C Unless S | Specified) | | | | |
|--|----------------|------------------|-----|-----|-----|------|
| DESCRIPTION | SYMBOL | TEST CONDITION | MIN | TYP | MAX | UNIT |
| Collector Emitter Sustaining Voltage | VCEO(sus) | * IC=100mA, IB=0 | | | | |
| | | C45C5 | 45 | - | - | V |
| | | C45C11 | 80 | - | - | V |
| Collector Cutt off Current | ICES | VCE=Rated VCES | - | - | 10 | uA |
| Emitter Cut off Current | IEBO | VEB=5V, IC=0 | - | - | 100 | uA |
| Collector Emitter Saturation Voltage | VCE(Sat)* | IC=1A, IB=50mA | - | - | 0.5 | V |
| Base Emitter Saturation Voltage | VBE(Sat)* | IC=1A, IB=100mA | - | - | 1.3 | V |
| Dc Current Gain | hFE* | IC=0.2A, VCE=1V | 40 | - | 120 | |
| | | IC=1A, VCE=1V | 20 | - | - | |
| Dynamic Characteristics | | | | | | |
| Transition Frequency | ft | VCE=4V, IC=20mA | - | 40 | - | MHz |
| Collector Output Capacitance | Ccbo | VCB=10V, IE=0 | - | - | 125 | pF |
| · | | f=1MHz | | | | · |
| Switching Time | | | | | | |
| Delay Time | td +tr | | - | 50 | - | ns |
| | td +tr | | - | 50 | - | n |

IC= 1A, IB1=1B2 0.1A, VCC=30V,

tp=25 usec

*Pulse Test Pulse Width =300ms, Duty Cycle=2%

ts

ns

ns

500

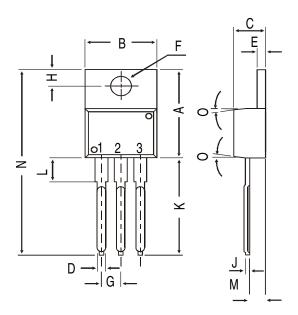
50

Rise Time

Fall Time

Storage Time

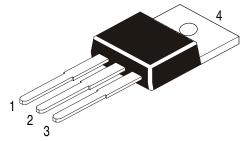
TO-220 Plastic Package



| | DIM | MIN. | MAX. | | |
|-----------------------|-----|-------|-------|--|--|
| | Α | 14.42 | 16.51 | | |
| All diminsions in mm. | В | 9.63 | 10.67 | | |
| | С | 3.56 | 4.83 | | |
| | D | | 0.90 | | |
| | Е | 1.15 | 1.40 | | |
| | F | 3.75 | 3.88 | | |
| | G | 2.29 | 2.79 | | |
| | Н | 2.54 | 3.43 | | |
| | J | 1 | 0.56 | | |
| | K | 12.70 | 14.73 | | |
| | L | 2.80 | 4.07 | | |
| | М | 2.03 | 2.92 | | |
| | N | _ | 31.24 | | |
| A | 0 | DEG 7 | | | |
| | | | | | |

PIN CONFIGURATION

- 1. BASE
- 2. COLLECTOR
- 3. EMITTER
- 4. COLLECTOR



TO-220 Tube Packing End Pin 13.74 DEVICE NAME Sr. OTY. 50 PCS./Tube AMMO PACK SIZE 20 Tubes/Ammo Pack 1000 pcs./Ammo Pack

Packing Detail

| PACKAGE | STANDARD PACK | | INNER CARTON BOX | | OUTER CARTON BOX | | |
|-------------|--------------------------------|---------------------------------|---|--------------|--------------------------------------|----------------|------------------|
| | Details | Net Weight/Qty | Size | Qty | Size | Qty | Gr Wt |
| T0-220 / FP | 200 pcs/polybag 50 pcs/tube | 396 gm/200 pcs 120 gm/50 pcs | 3" x 7.5" x 7.5" 3.5" x 3.7" x 21.5" | 1.0K 1.0K | 17" x 15" x 13.5" 19" x 19" x 19" | 16.0K 10.0K | 36 kgs 29 kgs |

Notes

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Discrete Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished on the CDIL Web Site/CD is believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Discrete Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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