



HIGH POWER DIODE MODULE TYPE 40A

Features

- High Surge Capability
- Type 2200V  $V_{RRM}$
- Isolation Type Package
- Electrically Isolation base plate

Preliminary

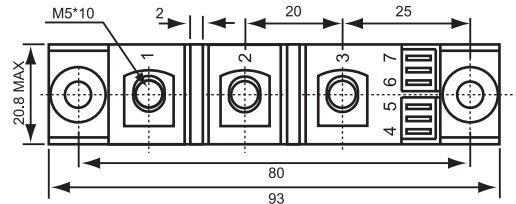


Maximum Ratings

Operating Temperature : -40 °C to + 150 °C  
 Storage Temperature : -40 °C to + 150 °C

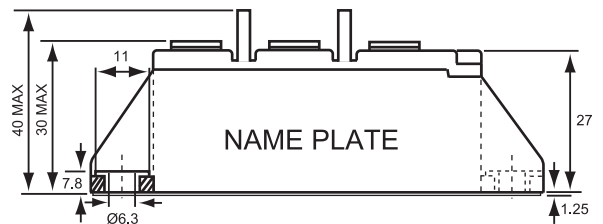
| Part Number      | Maximum Recurrent Peak Reverse Voltage | Maximum DC Blocking Voltage |
|------------------|--|-----------------------------|
| MSRTTAL40220A(R) | 2200V                                  | 2200V                       |

Dimensions in mm (1 mm = 0.0394")

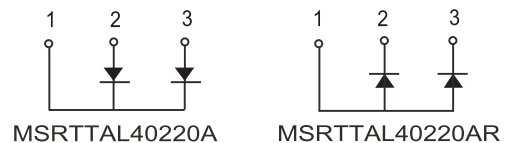


Electrical Characteristics @ 25 °C Unless Otherwise Specified

| Item                                 | Symbol      | Rating                 |  | Conditions                  |
|--------------------------------------|-------------|------------------------|--|-----------------------------|
|                                      |             | Max                    |  |                             |
| Average Forward Current (Per pkg)    | $I_{F(AV)}$ | 40 A                   |  | $T_c = 140^\circ C$         |
| Peak Forward Surge Current (Per leg) | $I_{FSM}$   | 1080A                  |  | 8.3ms, half sine            |
| Isolation Voltage                    | $V_{iso}$   | 3000 V                 |  | A.C. 1 minute               |
| Mounting torque                      |             | 5 ± 0.5Nm<br>3 ± 0.5Nm |  | to heatsink<br>to terminals |



| Item   | Symbol          | Rating         |                | Conditions   |
|--|-----------------|----------------|----------------|--|
|  |                 | Typ.           | Max            |  |
| Maximum Instantaneous Forward Voltage* (Per leg)                             | $V_F$           | 0.82V<br>0.86V | 0.90V<br>0.95V | $I_{FM} = 10 A ; T_J = 25^\circ C$<br>$I_{FM} = 20 A ; T_J = 25^\circ C$ |
| Maximum Instantaneous Reverse Current At Rated DC Blocking Voltage (Per leg) | $I_R$           |                | 25 uA<br>3 mA  | $T_J = 25^\circ C$<br>$T_J = 150^\circ C$                                |
| Maximum Thermal Resistance Junction To Case (Per leg)                        | $R_{\theta jc}$ |                | 0.5 °C/W       |  |



NOTE :

(1) Pulse Test: Pulse Width 300 μ sec. Duty Cycle < 2%

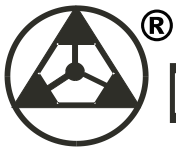


Figure .1 - Typical Forward Characteristics

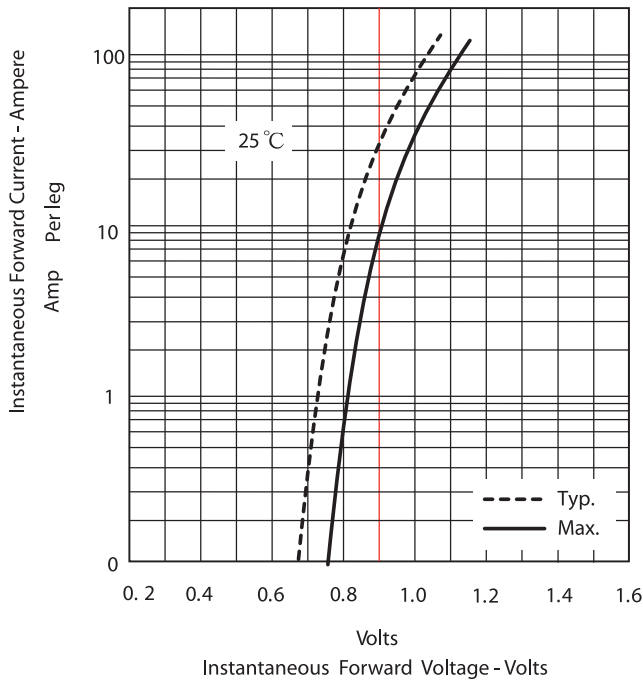


Figure.2 - Forward Derating Curve

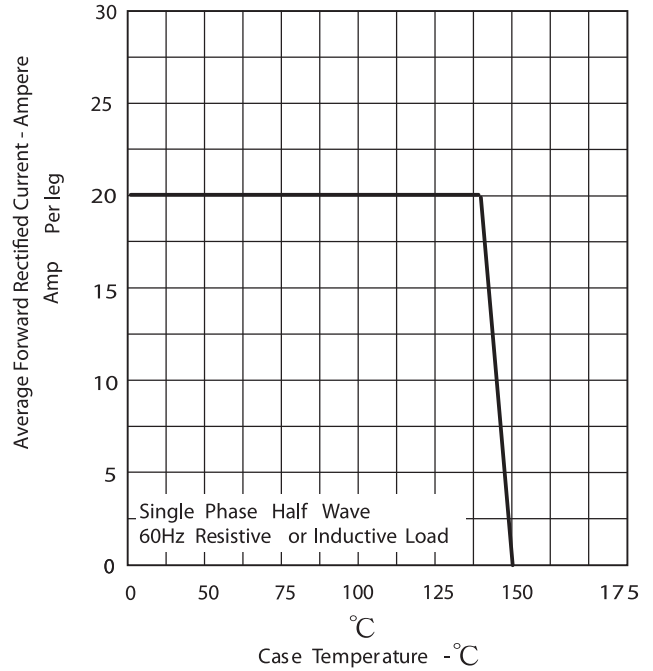


Figure.3 - Peak Forward Surge Current

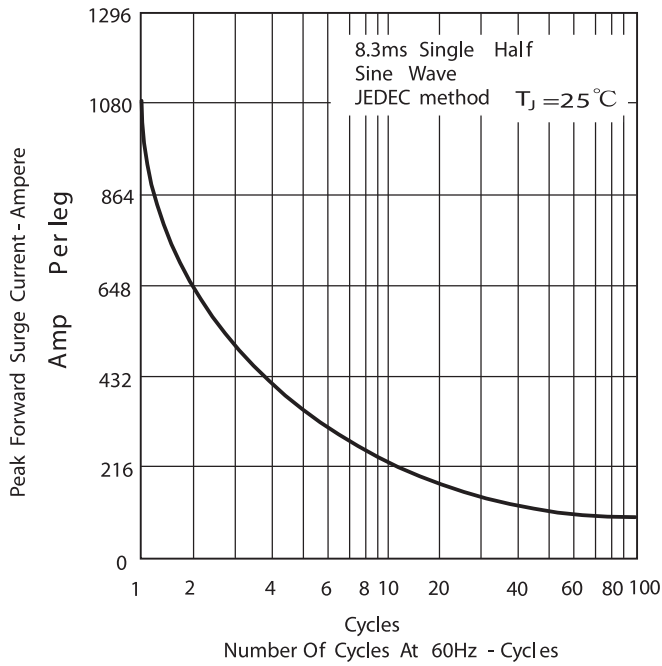


Figure .4 -Typical Reverse Characteristics

