

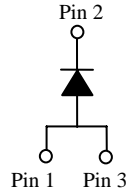
RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

## FEATURES

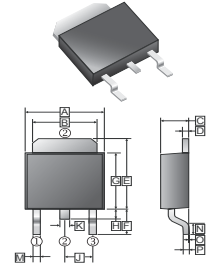
- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction

## MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: Lead solderable per MIL-STD-202 method 208
- Polarity: As Marked
- Mounting position: Any
- Weight: 0.7 grams



## TO-252(D-PACK)



| REF. | Millimeter |      | REF. | Millimeter |      |
|------|------------|------|------|------------|------|
|      | Min.       | Max. |      | Min.       | Max. |
| A    | 6.35       | 6.8  | J    | 2.30       | REF. |
| B    | 5.20       | 5.50 | K    | 0.70       | 0.90 |
| C    | 2.20       | 2.40 | L    | 0.50       | 0.70 |
| D    | 0.43       | 0.58 | M    | 0.60       | 0.90 |
| E    | 6.40       | 7.35 | N    | 1.40       | 1.78 |
| F    | 2.40       | 3.00 | O    | 0          | 0.15 |
| G    | 5.40       | 5.80 | P    | 0.43       | 0.58 |
| H    | 0.60       | 1.20 |      |            |      |

## MAXIMUM RATINGS

Rating 25°C ambient temperature unless otherwise specified.  
Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, de-rate current by 20%.

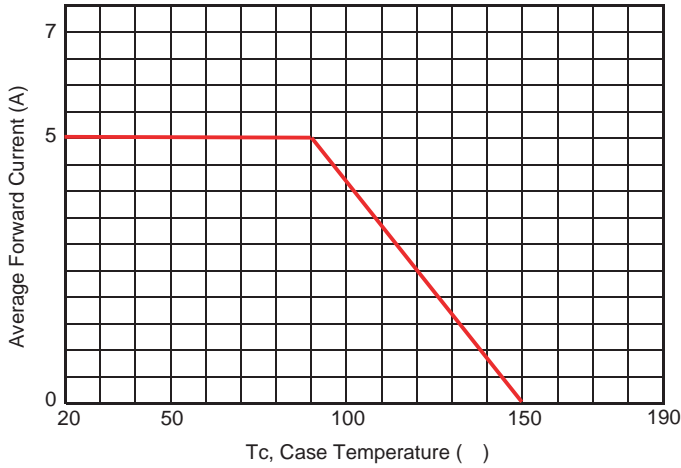
| PARAMETER   | SYMBOL          | RATING  | UNIT        |
|---|-----------------|---------|-------------|
| Maximum Repetitive Peak Reverse Voltage   | $V_{RRM}$       | 150     | V           |
| Maximum RMS Voltage   | $V_{RMS}$       | 105     | V           |
| Maximum DC Blocking Voltage   | $V_{DC}$        | 150     | V           |
| Maximum Average Forward Rectified Current   | $I_F$           | 5       | A           |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load | $I_{FSM}$       | 120     | A           |
| Maximum Instantaneous Forward Voltage @ 5A  | $V_F$           | 0.87    | V           |
| Maximum DC Reverse Current at Rated DC Blocking Voltage (Note 3)                    | $I_R$           | 0.2     | mA          |
|   |                 | 2       |             |
| Typical Junction Capacitance (Note 1)   | $C_J$           | 250     | pF          |
| Voltage Rate Of Change (Rated $V_R$ )   | $dv / dt$       | 10000   | V / $\mu$ s |
| Typical Thermal Resistance (Note 2)   | $R_{\theta jc}$ | 12      | °C/W        |
|   | $R_{\theta ja}$ | 95.8    |             |
| Operating & Storage Temperature   | $T_J, T_{STG}$  | -55~150 | °C          |

### NOTES:

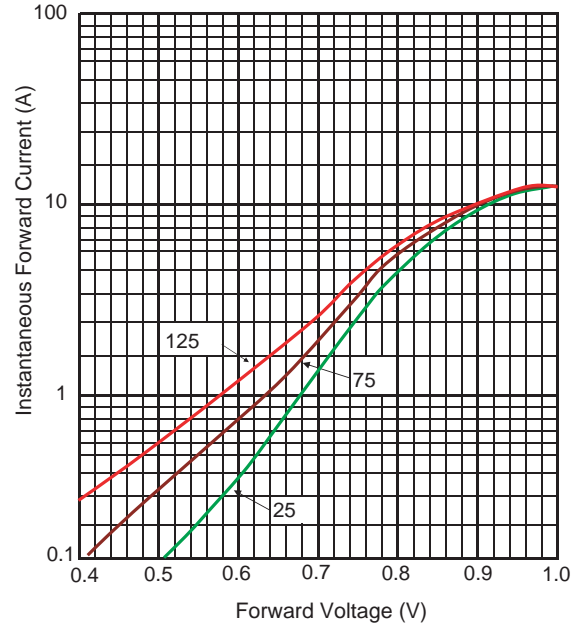
1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance , mounted 6.2mmx5.8mm Cu pad size on FR-4 board.
3. Pulse test: 300uS pulse width, 1% duty cycle.

**RATINGS AND CHARACTERISTIC CURVES**

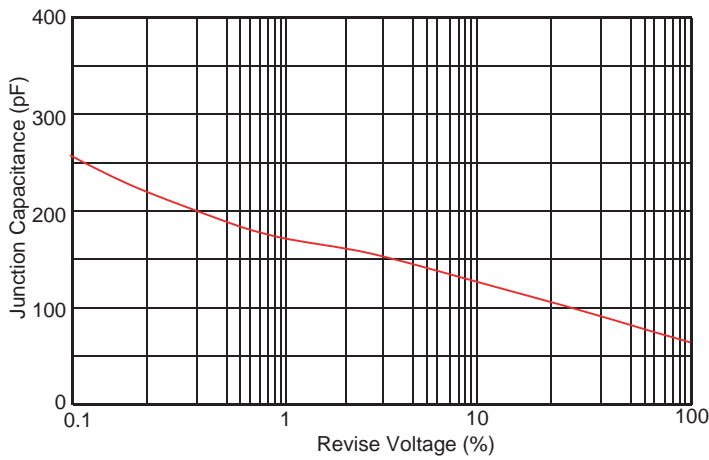
Typical Forward Current Derating Curve



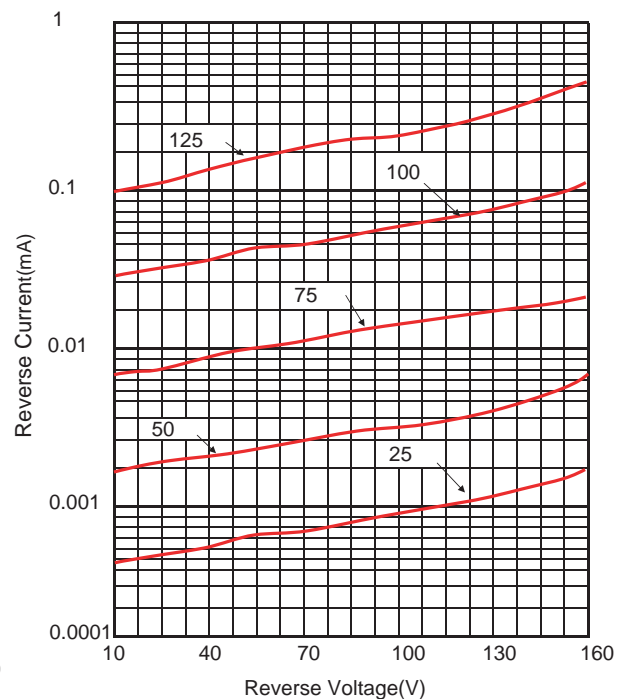
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non- Repetitive Forward Surge Current

