

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

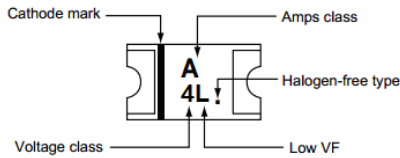
**FEATURES**

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Halogen-free type
- Low power loss , High efficiency
- High current capability , low  $V_F$

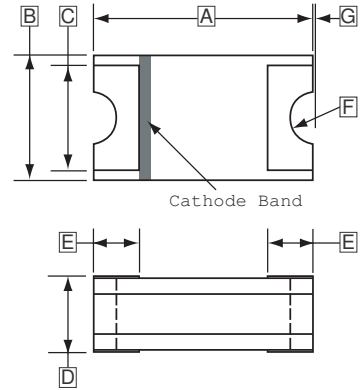
**MECHANICAL DATA**

- Case : Packed with FRP substrate and epoxy underfilled
- Terminals : Pure Tin plated (Lead-Free), solderable per MIL-STD-750 , Method 2026.
- Polarity : Laser Cathode band marking
- Weight: 0.005 grams (approximate)

**MARKING**



**0805**



| REF. | Millimeter |      | REF. | Millimeter |      |
|------|------------|------|------|------------|------|
|      | Min.       | Max. |      | Min.       | Max. |
| A    | 1.90       | 2.10 | E    | 0.40       | 0.60 |
| B    | 1.20       | 1.40 | F    | R 0.275    |      |
| C    | 1.00 TYP.  |      | G    | 0.05 REF.  |      |
| D    | 0.85       | 1.05 |      |            |      |

**PACKAGE INFORMATION**

| PACKAGE | MPQ | Leader Size |
|---------|-----|-------------|
| 0805    | 3K  | 7 inch      |

**ABSOLUTE MAXIMUM RATINGS** ( $T_A=25^{\circ}\text{C}$  unless otherwise specified)

| Type Number   | Symbol      | Rating  | Unit               |
|---|-------------|---------|--------------------|
| Maximum Recurrent Peak Reverse Voltage                    | $V_{RRM}$   | 40      | V                  |
| Maximum Average Forward Current                           | $I_{F(AV)}$ | 1       | A                  |
| Peak Forward Surge Current @ 8.3 ms single half sine-wave | $I_{FSM}$   | 10      | A                  |
| Junction Temperature Range $T_J$                          | $T_J$       | -55~125 | $^{\circ}\text{C}$ |
| Storage Temperature Range $T_{STG}$                       | $T_{STG}$   | -55~150 | $^{\circ}\text{C}$ |

**ELECTRICAL CHARACTERISTICS** ( $T_A=25^{\circ}\text{C}$  unless otherwise specified)

| Type Number  | Symbol          | Min. | Typ. | Max. | Unit                          |
|--|-----------------|------|------|------|-------------------------------|
| Forward Voltage @ $I_F=1\text{A}$  | $V_F$           | -    | 0.37 | 0.38 | V                             |
| Repetitive peak reverse current @ $V_R=\text{Max. } V_{RRM}, T_A=25^{\circ}\text{C}$ | $I_{RRM}$       | -    | 0.3  | 1    | mA                            |
| Junction capacitance @ $V_R=4\text{V}, f=1.0\text{MHz}$                              | $C_J$           | -    | 115  | -    | pF                            |
| Typical Thermal Resistance Junction to ambient <sup>1</sup>                          | $R_{\theta JA}$ | -    | 88   | -    | $^{\circ}\text{C} / \text{W}$ |
| Typical Thermal Resistance Junction to lead <sup>1</sup>                             | $R_{\theta JL}$ | -    | 28   | -    | $^{\circ}\text{C} / \text{W}$ |

Note:

1. Mounted on P.C. board with 0.2 x 0.2"(5.0 x5.0mm) copper pad areas

**RATINGS AND CHARACTERISTIC CURVES**

FIG.1 - FORWARD CURRENT DERATING CURVE

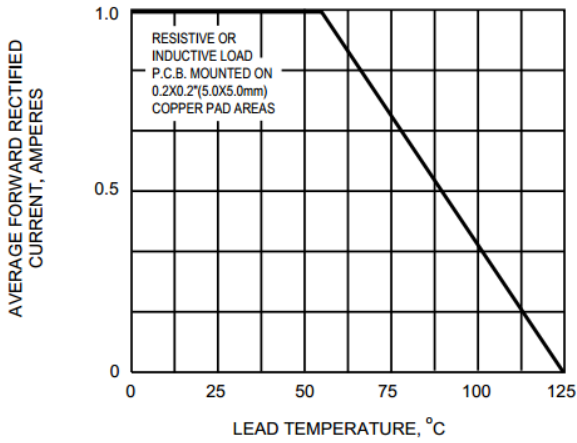


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

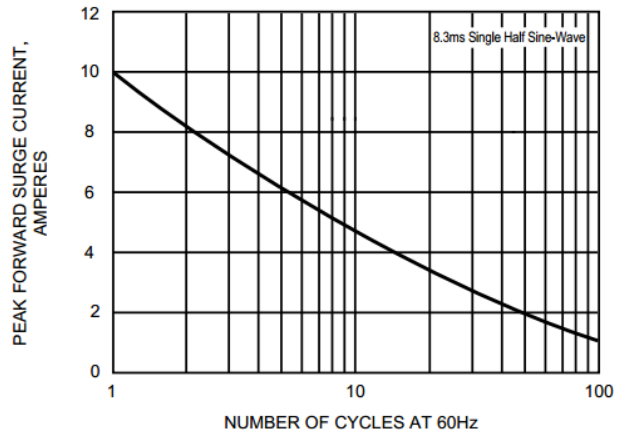


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

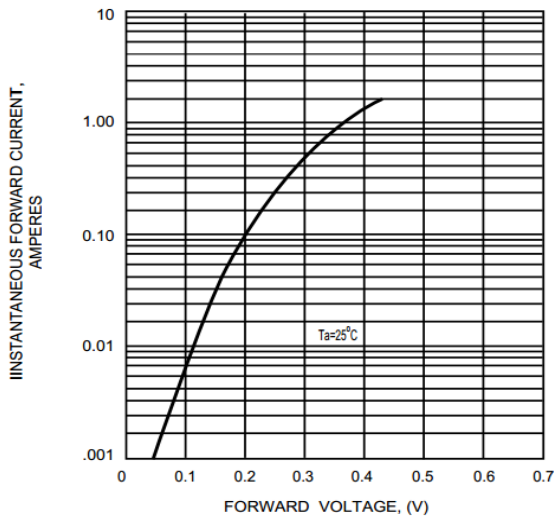


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

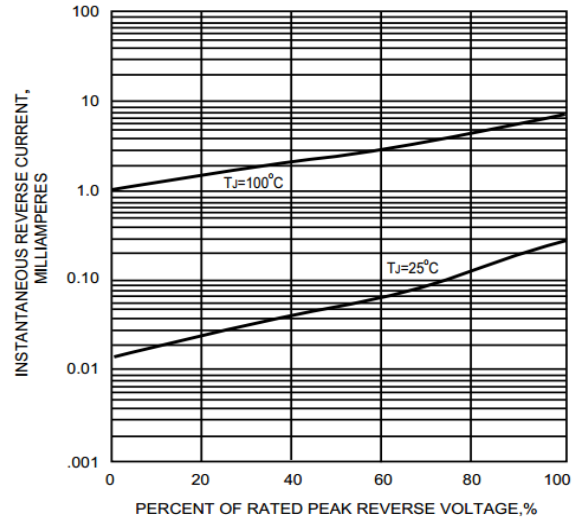


FIG.5 - TYPICAL JUNCTION CAPACITANCE

