

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

FEATURES

- Lead less chip form, no lead damage
- Lead-free solder joint, no wire bond & lead frame
- Low power loss, high efficiency
- High current capability, low V_F
- Plastic package has underwriters laboratory flammability Classification 94V-0

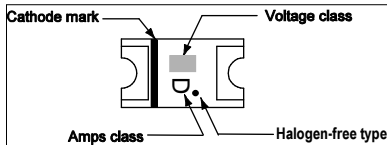
APPLICATION

- Switching mode power supply applications
- Portable equipment battery applications
- High frequency rectification
- DC / DC converter
- Telecommunication

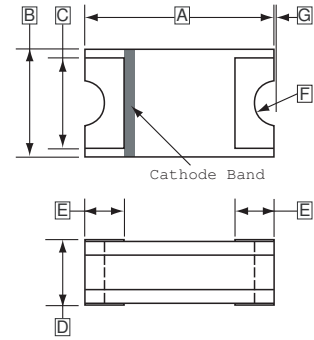
MECHANICAL DATA

- 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 : 0.003 gram

MARKING



0603



| REF. | Millimeter | | REF. | Millimeter | |
|------|------------|------|------|------------|------|
| | Min. | Max. | | Min. | Max. |
| A | 1.50 | 1.70 | E | 0.30 | 0.40 |
| B | 0.80 | 1.00 | F | R 0.20 | |
| C | 0.70 TYP. | | G | 0.05 REF. | |
| D | 0.50 | 0.80 | | | |

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

| PARAMETER | SYMBOL | VALUE | | UNIT | TEST CONDITION |
|-----------------------------------|--------------------|-----------|---------|------|-------------------------|
| | | UMMD022 | UMMD024 | | |
| Repetitive Peak Reverse Voltage | V_{RRM} | 20 | 40 | V | |
| Average Forward Current | $I_{F(AV)}$ | 200 | | mA | |
| Peak Forward Surge Current | I_{FSM} | 2.0 | | A | @ 8.3 ms half sine-wave |
| Junction Temperature | T_J | 125 | | °C | |
| Operating and Storage Temperature | T_{OPR}, T_{STG} | -40 ~ 125 | | | |

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

| TYPE NUMBER | SYMBOL | MIN | TYP | MAX | UNIT | TEST CONDITION |
|---|-----------------|-----|------|------|---------------|--|
| Forward Voltage | V_F | - | 0.30 | - | V | $I_F = 50\text{mA}$ |
| | | - | 0.40 | - | | $I_F = 100\text{mA}$ |
| | | - | 0.43 | 0.45 | | $I_F = 200\text{mA}$ |
| Repetitive Peak Reverse Current | I_{RRM} | - | 1.5 | 30 | μA | $V_R = 10\text{V}, T_A = 25^\circ\text{C}$ |
| | | - | 8 | 50 | | $V_R = \text{Max. } V_{RRM}, T_A = 25^\circ\text{C}$ |
| Junction capacitance | C_J | - | 35 | - | pF | $V_R = 4\text{V}, f = 1.0\text{ MHz}$ |
| Typical Thermal Resistance, Junction to Ambient | $R_{\theta JA}$ | - | 160 | - | °C / W | |
| Typical Thermal Resistance, Junction to Lead | $R_{\theta JL}$ | - | 110 | - | | |

RATINGS AND CHARACTERISTIC CURVES

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

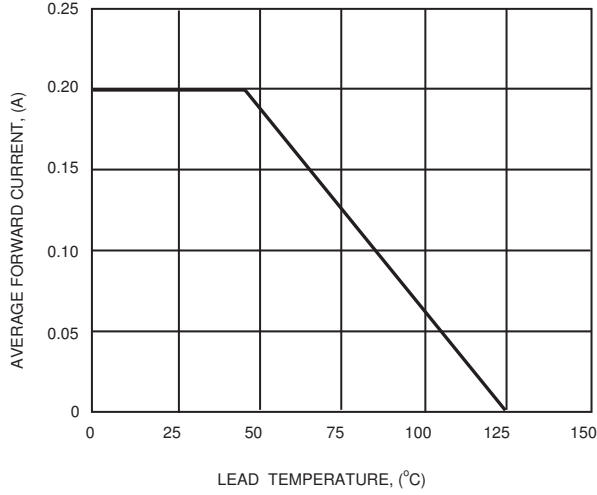


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

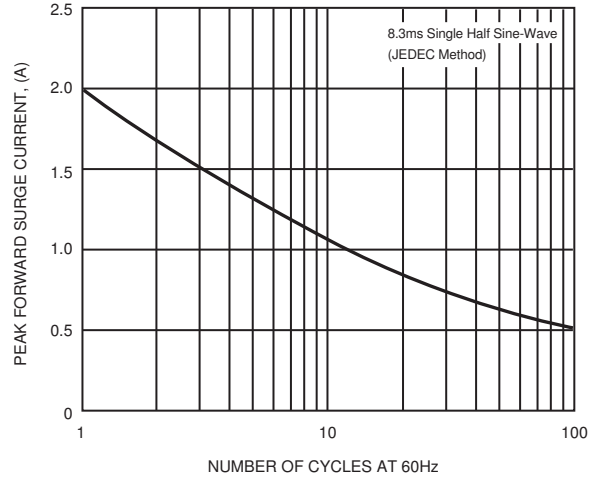


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

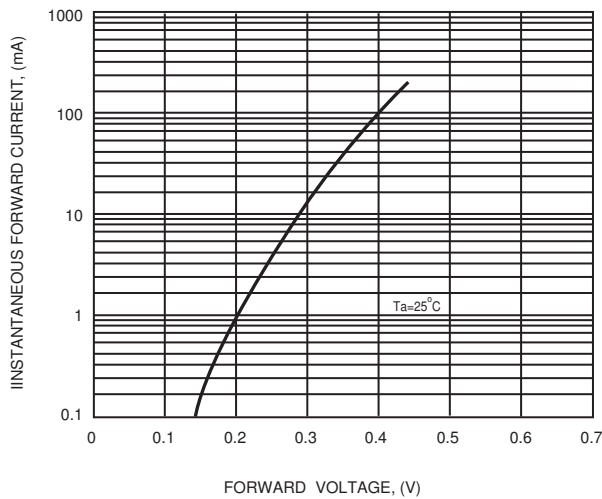


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

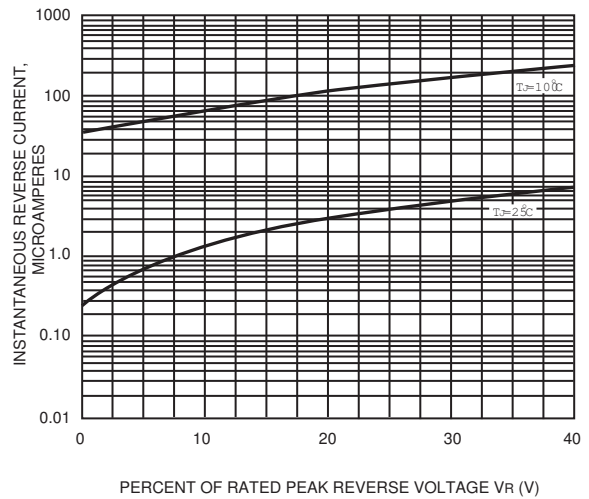


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

