

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

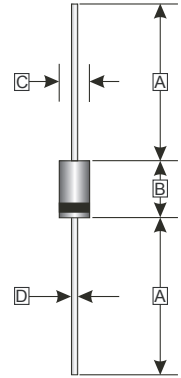
FEATURES

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- High speed switching

MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Weight: 0.34 grams

DO-41



| REF. | Millimeter | |
|------|------------|------|
| | Min. | Max. |
| A | 25.4 (TYP) | |
| B | 4.10 | 5.21 |
| C | 2.00 | 2.72 |
| D | 0.70 | 0.90 |

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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%.

| PARAMETERS | SYMBOL | PART NUMBERS | | | | | | | UNITS | TESTING CONDITIONS |
|--|-----------|--------------|----------|----------|----------|----------|----------|----------|--|---|
| | | FR 101 G | FR 102 G | FR 103 G | FR 104 G | FR 105 G | FR 106 G | FR 107 G | | |
| Recurrent Reverse Voltage (Max.) | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V | |
| RMS Voltage (Max.) | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V | |
| DC Blocking Voltage (Max.) | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V | |
| Instantaneous Forward Voltage(Max.) | V_F | 1.3 | | | | | | | V | $I_F = 1A$ |
| Average Forward Rectified Current (Max.) | I_O | 1.0 | | | | | | | A | 0.375" (9.5mm) lead length @ $T_A = 55^\circ C$ |
| Peak Forward Surge Current | I_{FSM} | 30 | | | | | | | A | 8.3ms single half sine-wave superimposed on rated load (JEDEC method) |
| DC Reverse Current (Max.) | I_R | 5.0 | | | | | | | μA | $V_R = V_{DC}, T_A = 25^\circ C$ |
| | | 100 | | | | | | | | $V_R = V_{DC}, T_A = 100^\circ C$ |
| Reverse Recovery Time (Max.) | T_{RR} | 150 | | | 250 | 500 | | nS | $I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A$ | |
| Junction Capacitance (Typ.) | C_J | 15 | | | | | | | pF | f=1MHz and applied 4V DC reverse voltage |
| Storage Temperature Range | T_{STG} | -65 ~ 150 | | | | | | | $^\circ C$ | |

RATINGS AND CHARACTERISTIC CURVES (FR101G THRU FR107G)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

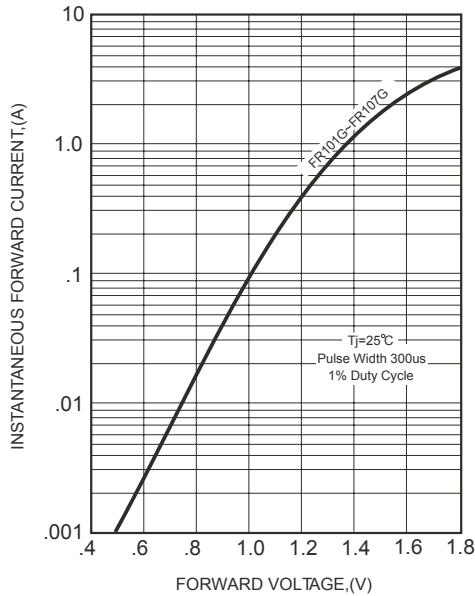


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

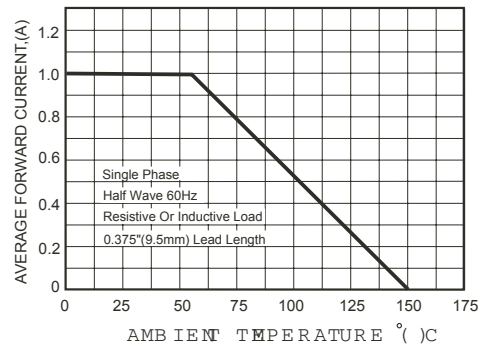
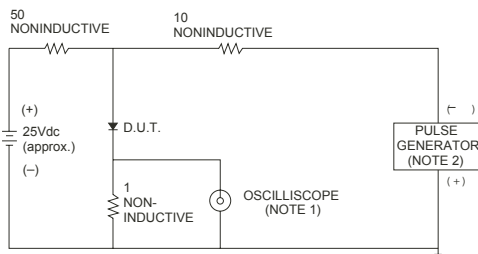


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.
2. Rise Time= 10ns max., Source Impedance= 50 ohms.

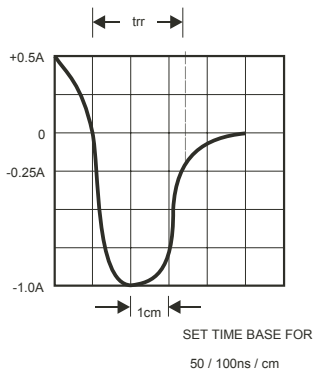


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

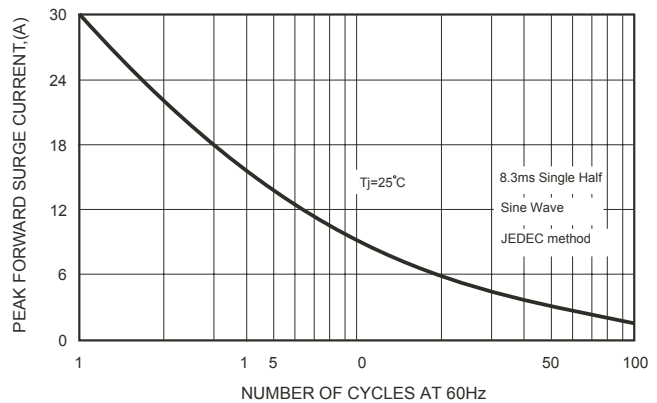


FIG.5-TYPICAL JUNCTION CAPACITANCE

