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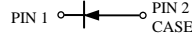
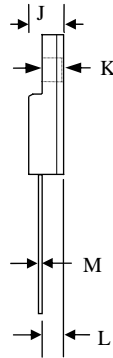
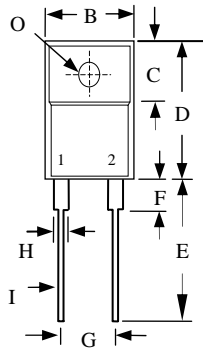
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8A SUPER FAST RECOVERY RECTIFIER

SFF80-03-LFR THRU SFF80-06-LFR

CASE: ITO-220AC (SFF80-XX), FULLY INSULATED PACKAGE



| | MILLIMETERS | |
|---|-------------|-------|
| | MIN | MAX |
| B | 9.72 | 10.27 |
| C | 6.30 | 6.90 |
| D | 14.50 | 15.50 |
| E | 13.00 | 13.80 |
| F | - | 4.1 |
| G | 4.95 | 5.20 |
| H | - | 1.52 |
| I | - | 0.9 |
| J | - | 4.8 |
| K | - | 3.1 |
| L | 2.5 | 2.9 |
| M | - | 0.8 |
| O | - | Ø 3.4 |

FEATURES

- ULTRA FAST RECOVERY TIME
- LOW FORWARD VOLTAGE
- LOW THERMAL RESISTANCE
- HIGH CURRENT CAPABILITY
- HIGH VOLTAGE
- GLASS PASSIVATED CHIP JUNCTION
- ROHS

MECHANICAL DATA

- CASE: TRANSFER MOLDED
- TERMINAL: MIL-STD-202F METHOD 208
- POLARITY: AS MARKED
- EPOXY: UL94V-0 FLAME RETARDANT MOLDING COMPOUND
- MOUNTING POSITION: ANY
- WEIGHT 1.81 GRAMS

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED SINGLE PHASE, HALF WAVE, 60 HZ, RESISTIVE OR INDUCTIVE LOAD. FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%

| RATINGS | SYMBOL | SFF80-03-LFR | SFF80-04-LFR | SFF80-05-LFR | SFF80-06-LFR | UNITS |
|--|-----------------|---------------|--------------|--------------|--------------|-------|
| MAXIMUM RECURRENT PEAK REVERSE VOLTAGE | V_{RRM} | 300 | 400 | 500 | 600 | V |
| MAXIMUM RMS VOLTAGE | V_{RMS} | 210 | 280 | 350 | 420 | V |
| MAXIMUM DC BLOCKING VOLTAGE | V_{DC} | 300 | 400 | 500 | 600 | V |
| MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT SEE FIG.1 | I_O | 8.0 | | | | A |
| PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD | I_{FSM} | 125 | | | | A |
| TYPICAL JUNCTION CAPACITANCE (NOTE 1) | C_j | 65 | | | | PF |
| TYPICAL THERMAL RESISTANCE (NOTE 2) | $R_{\theta jc}$ | 2.2 | | | | °C/W |
| STORAGE TEMPERATURE RANGE | T_{STG} | - 55 TO + 150 | | | | °C |
| OPERATING TEMPERATURE RANGE | T_{OP} | - 55 TO + 150 | | | | °C |

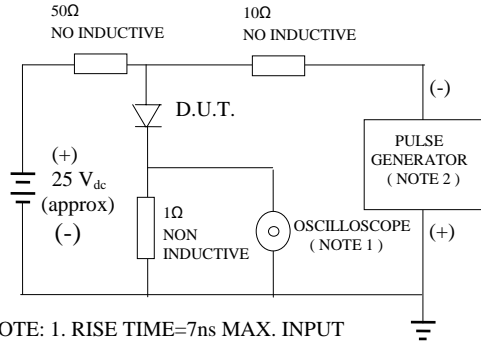
ELECTRICAL CHARACTERISTICS ($A_T T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)

| CHARACTERISTICS | SYMBOL | SFF80-03-LFR | SFF80-04-LFR | SFF80-05-LFR | SFF80-06-LFR | UNITS |
|---|----------|--------------|--------------|--------------|--------------|---------------|
| MAXIMUM FORWARD VOLTAGE AT I_O PER LEG | V_F | 1.30 | | 1.70 | | V |
| MAXIMUM DC REVERSE CURRENT AT $T_A = 25^\circ\text{C}$ | I_R | 10 | | | | μA |
| MAXIMUM DC REVERSE CURRENT AT $T_A = 100^\circ\text{C}$ | I_R | 100 | | | | μA |
| MAXIMUM REVERSE RECOVERY TIME (NOTE 3) | T_{RR} | 35 | | | | nS |

- NOTES: 1. MEASURED AT 1 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 VOLTS
2. THERMAL RESISTANCE JUNCTION TO CASE PER LEG MOUNTED ON HEAT SINK

RATINGS AND CHARACTERISTIC CURVE SFF80-03-LFR THRU SFF80-06-LFR

FIG. 1 -TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTE: 1. RISE TIME=7ns MAX. INPUT IMPEDANCE=1 MOhms 22PF
 2. RISE TIME =10 ns MAX. SOURCE IMPEDANCE=50 OHMS

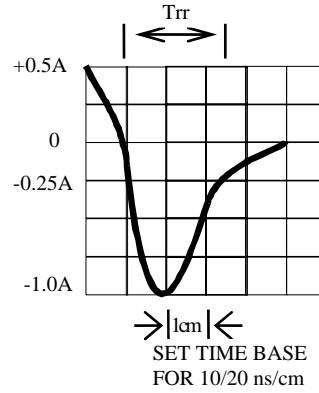


FIG. 2 -TYPICAL FORWARD CURRENT DERATING CURVE

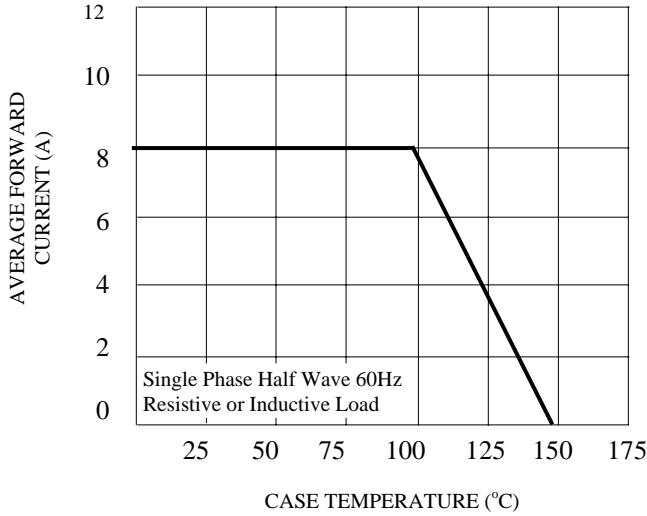


FIG. 3 -TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

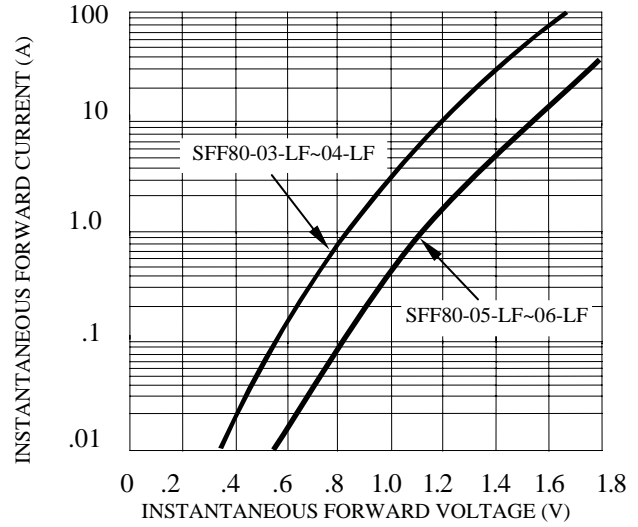


FIG. 4 -TYPICAL REVERSE CHARACTERISTICS

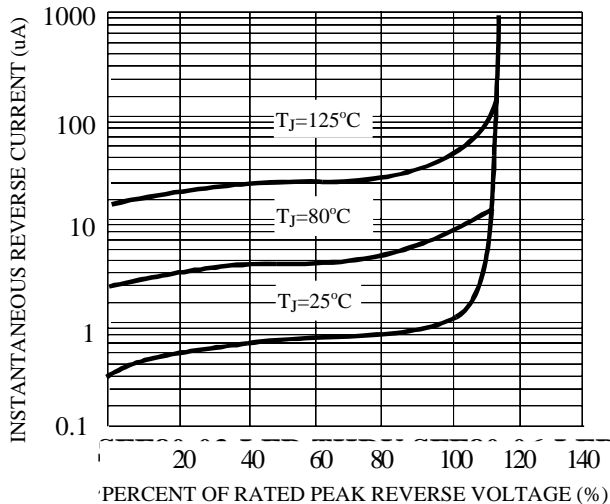


FIG. 5 -TYPICAL JUNCTION CAPACITANCE

