

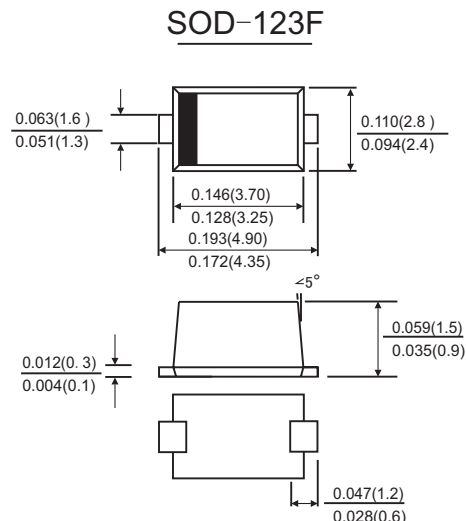
### FEATURES

- Glass passivated junction
- For Surface Mount Applications, Easy to pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High temperature soldering guaranteed: 260°C/10 seconds at terminals,
- Component in accordance to RoHS 2011/65/EU



### MECHANICAL DATA

- Case: SOD-123F molded plastic over glass passivated chip
- Terminals: Solder plated
- Polarity: Color band denotes cathode end



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.)

|  | Symbols           | R1AS        | R1BS | R1DS | R1GS | R1JS | R1KS | R1MS | Units      |
|--|-------------------|-------------|------|------|------|------|------|------|------------|
| Maximum Recurrent Peak Reverse Voltage   | $V_{RRM}$         | 50          | 100  | 200  | 400  | 600  | 800  | 1000 | Volts      |
| Maximum RMS Voltage  | $V_{RMS}$         | 35          | 70   | 140  | 280  | 420  | 560  | 700  | Volts      |
| Maximum DC Blocking Voltage  | $V_{DC}$          | 50          | 100  | 200  | 400  | 600  | 800  | 1000 | Volts      |
| Maximum Average Forward Rectified Current  | $I_{(AV)}$        | 1.0         |      |      |      |      |      |      | Amps       |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | $I_{FSM}$         | 30.0        |      |      |      |      |      |      | Amps       |
| Maximum Instantaneous Forward Voltage at 1.0 A   | $V_F$             | 1.3         |      |      |      |      |      |      | Volts      |
| Maximum DC Reverse Current at rated DC blocking voltage  | $T_A=25^\circ C$  | 5.0         |      |      |      |      |      |      | $\mu A$    |
|  | $T_A=125^\circ C$ |             |      |      |      |      |      |      |            |
| Maximum reverse recovery time(Note1)   | $t_{rr}$          | 150         |      |      | 250  | 500  | ns   |      |            |
| Typical junction capacitance(Note2)  | $C_J$             | 15.0        |      |      |      |      |      |      | pF         |
| Operating junction and storage temperature range   | $T_J T_{STG}$     | -55 to +150 |      |      |      |      |      |      | $^\circ C$ |

Note: 1. Test conditions:  $I_F=0.5A, I_R=1.0A, I_{RR}=0.25A$ .

2. Measured at 1MHz and applied reverse voltage of 4.0 Volts D.C.

# RATINGS AND CHARACTERISTIC CURVES R1AS THRU R1MS

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

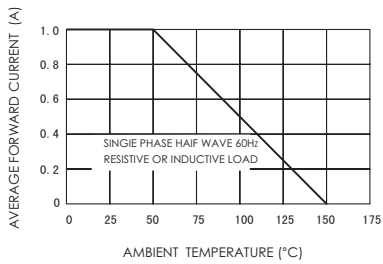


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

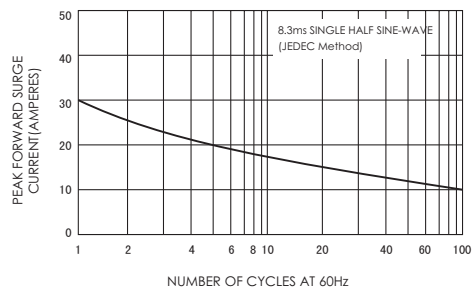


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

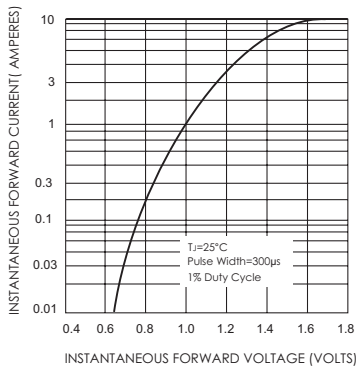


FIG.4-TYPICAL REVERSE CHARACTERISTICS

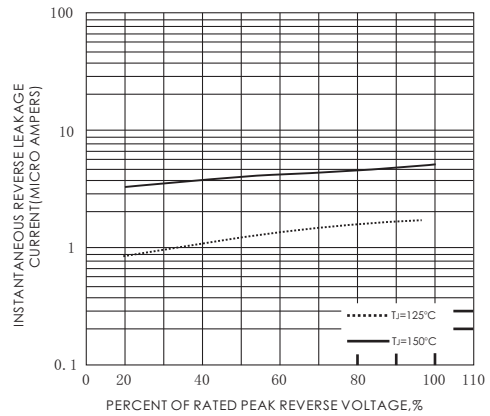


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

FIG.5-TYPICAL JUNCTION CAPACITANCE

