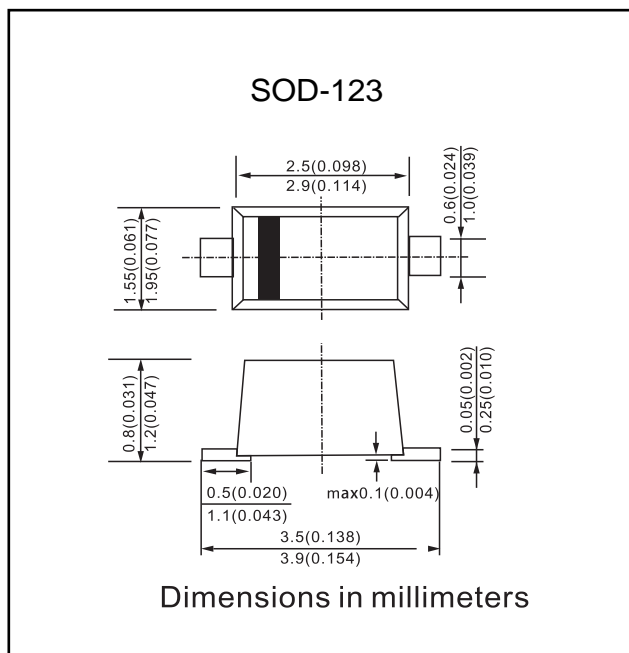


FEATURES

- For surface mount applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Superfast recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated junction
- High temperature soldering : 260°C/10seconds at terminals
- Pb free product are available : 99% Sn above can meet RoHS Environment substance directive request

MECHANICAL DATA

Case : JEDEC SOD-123 molded plastic
 Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
 Polarity : Indicated by cathode band
 Standard packaging : 16mm tape (EIA-481)
 Weight : 0.003 ounce, 0.093grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
 Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| MDD Catalog Number | SYMBOLS | ES1AL | ES1BL | ES1CL | ES1DL | ES1EL | ES1GL | ES1JL | UNITS |
|---|-----------------|--------------|-------|-------|-------|-------|-------|-------|-------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 50 | 100 | 150 | 200 | 300 | 400 | 600 | VOLTS |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 105 | 140 | 210 | 280 | 420 | VOLTS |
| Maximum DC blocking voltage | V_{DC} | 50 | 100 | 150 | 200 | 300 | 400 | 600 | VOLTS |
| Maximum average forward rectified current | $I_{(AV)}$ | 1.0 | | | | | | | Amp |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 25.0 | | | | | | | Amps |
| Maximum instantaneous forward voltage at 1.0A | V_F | 0.95 | | | 1.25 | | 1.7 | | Volts |
| Maximum DC reverse current $T_A=25^{\circ}C$ at rated DC blocking voltage $T_A=100^{\circ}C$ | I_R | 5.0 100.0 | | | | | | | μA |
| Maximum reverse recovery time (NOTE 1) | t_{rr} | 35 | | | | | | | ns |
| Typical junction capacitance (NOTE 2) | C_J | 10 | | | | | | | pF |
| Typical thermal resistance (NOTE 3) | $R_{\theta JA}$ | 85 | | | | | | | K/W |
| Operating junction and storage temperature range | T_J, T_{STG} | -55 to +150 | | | | | | | $^{\circ}C$ |

Note: 1. Measured with $I_F=0.5A$, $I_R=1A$, $I_{rr}=0.25A$.
 2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 3. PCB mounted on 0.2*0.2" (5.0*5.0mm) copper pad area.

RATINGS AND CHARACTERISTIC CURVES ES1AL THRU ES1JL

FIG. 1- FORWARD CURRENT DERATING CURVE

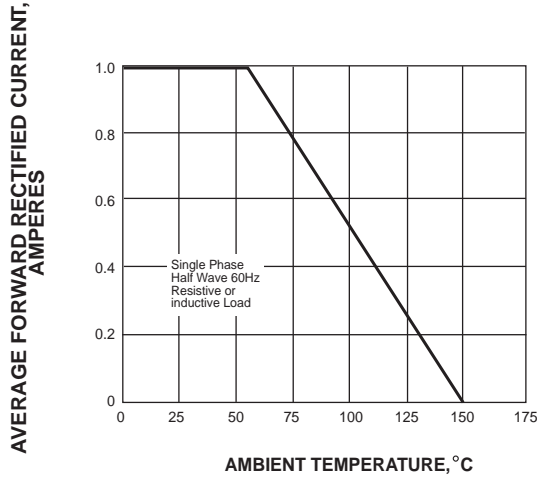


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

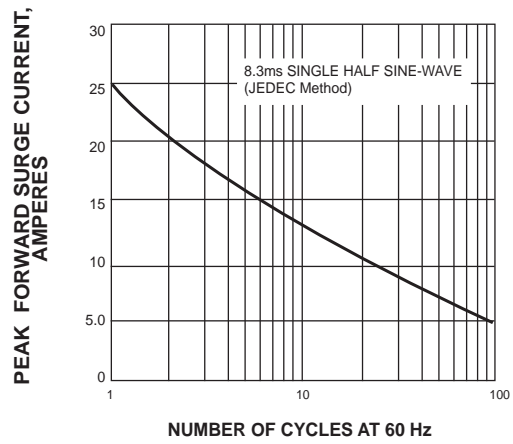


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

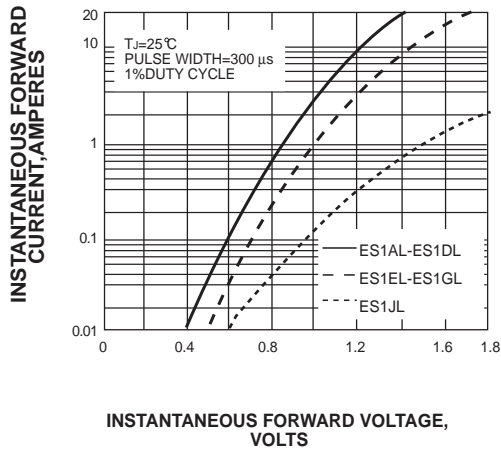


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

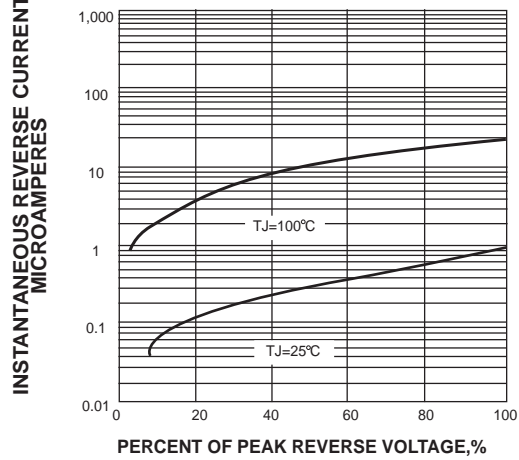


FIG. 5-TYPICAL JUNCTION CAPACITANCE

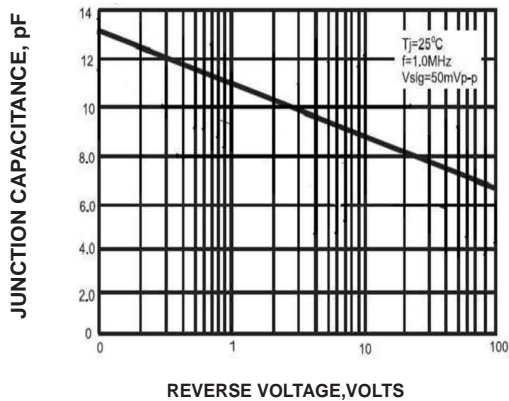


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

