

DATA SHEET

SS1020 SERIES

SURFACE MOUNT SCHOTTKY BARRIER

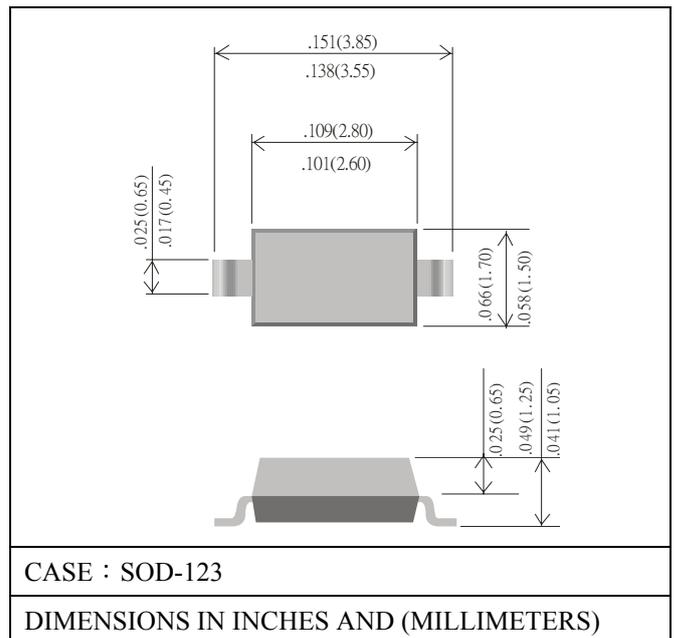
VOLTAGE 20~40 Volts **CURRENT** 1.0 A

FEATURES

- FAST SWITCHING SPEED
- HIGH CONDUCTOR
- SURFACE MOUNT PACKAGE IDEALLY SUITED FOR AUTOMATIC INSERTION
- ELECTRICAL IDENTICAL STANDARD JEDEC

MECHANICAL DATA

- CASE : SOD-123, PLASTIC
- TERMINALS : SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY: SEE DIAGRAM BELOW
- APPROX. WEIGHT: 0.008 GRAMS



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED.

| PARAMETER | SYMBOL | SS1020 | SS1030 | SS1040 | UNITS |
|---|-----------------|-----------|--------|--------|-------|
| DC BLOCKING VOLTAGE | V_R | 20 | 30 | 40 | V |
| RMS REVERSE VOLTAGE | V_{RMS} | 14 | 21 | 28 | V |
| PEAK REPETITIVE PEAK REVERSE VOLTAGE | V_{RRM} | 20 | 30 | 40 | V |
| NON-REPETITIVE REVERSE VOLTAGE | V_{RM} | 20 | 30 | 40 | V |
| RECTIFIED CURRENT(AVERAGE),HALF WAVE RECTIFICATION WITH RESISTIVE LOAD AND $f \geq 60\text{Hz}$ | I_O | 1.0 | | | A |
| NON-REPETITIVE PEAK FORWARD CURRENT AT $T=1.0\mu\text{s}$ | I_{FSM} | 25 | | | A |
| REPETITIVE PEAK FORWARD CURRENT | I_{FRM} | 625 | | | mA |
| POWER DISSIPATION | P_D | 250 | | | mW |
| THERMAL RESISTANCE JUNCTION TO AMBIENT | $R_{\theta JA}$ | 500 | | | K/W |
| STORAGE TEMPERATURE | T_{STG} | -65~ +150 | | | °C |

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

| PARAMETER | SYMBOL | SS1020 | SS1030 | SS1040 | UNITS |
|-------------------------------------|------------|-----------------|--------|--------|-------|
| REVERSE BREAKDOWN VOLTAGE AT 10mA | $V_{(BR)}$ | 20 | 30 | 40 | |
| MAXIMUM FORWARD VOLTAGE | V_F | $I_F=1\text{A}$ | 0.45 | 0.55 | V |
| | | $I_F=3\text{A}$ | 0.75 | 0.875 | |
| MAXIMUM DC REVERSE CURRENT AT V_R | I_R | 1.0 | | | mA |
| DIODE CAPACITANCE (NOTE 1) | C_D | 120 | | | pF |

NOTE: 1. CJ AT $V_R=4\text{V}, f=1\text{MHz}$

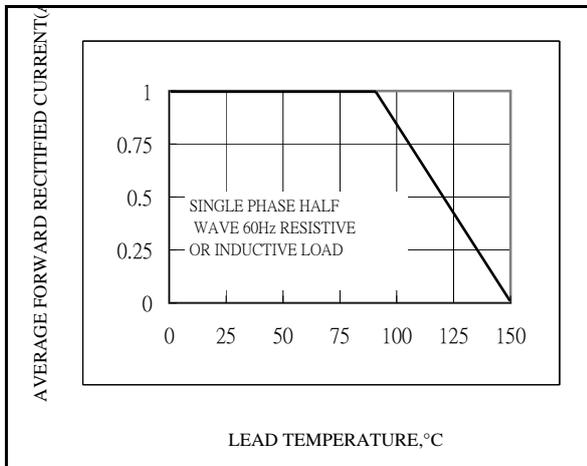


Fig.1-FORWARD CURRENT DERATING CURVE

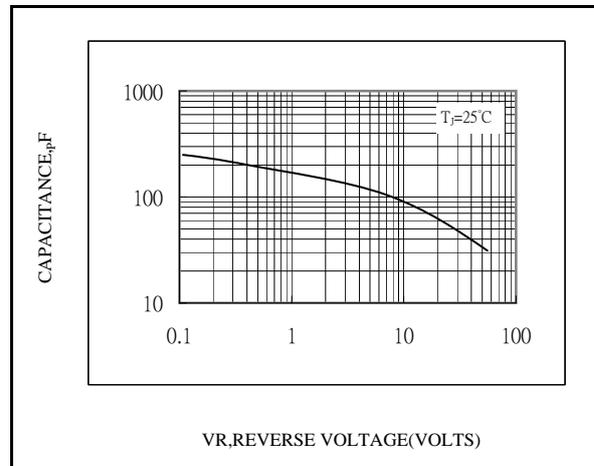


Fig.2-TYPICAL JUNCTION CHARACTERISTIC

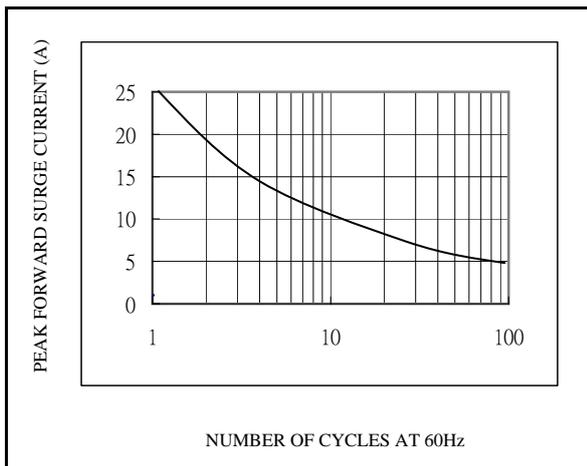


Fig.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

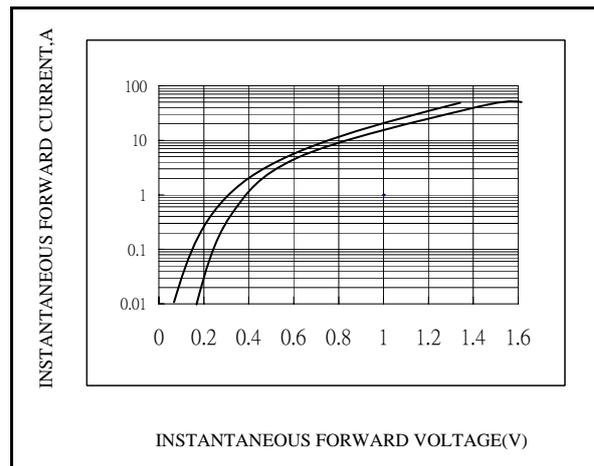


Fig.4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

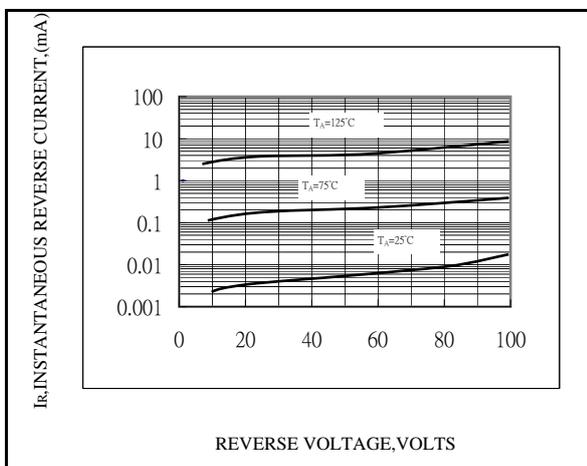


Fig.5-TYPICAL REVERSE CHARACTERISTICS

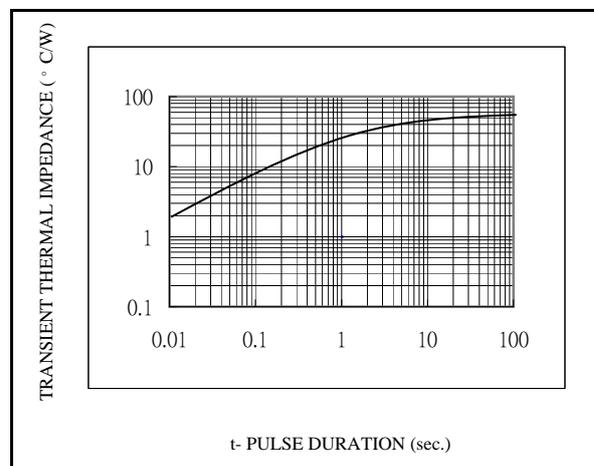


Fig.6-TYPICAL TRANSIENT THERMAL IMPEDANCE