

SURFACE MOUNT RECTIFIER

REVERSE VOLTAGE: 50 --- 1000 V
CURRENT: 3.0 A

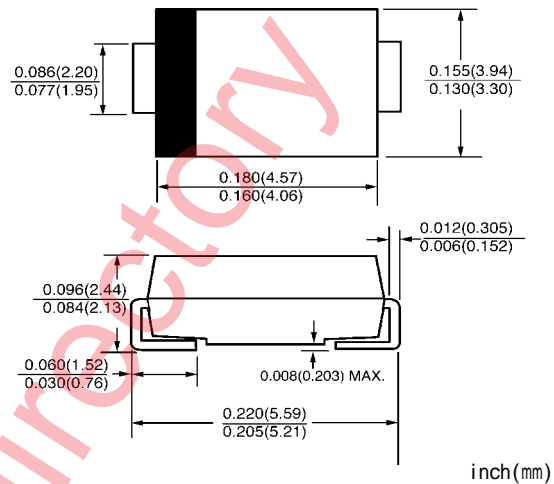
FEATURES

- ◇ Plastic package has underwriters laborator flammability classification 94V-0
- ◇ For surface mounted applications
- ◇ Low profile package
- ◇ Built-in strain relief, ideal for automated placement
- ◇ Glass passivated chip junction
- ◇ High temperature soldering:
250°C/10 seconds at terminals

MECHANICAL DATA

- ◇ Case: JEDEC DO-214AA, molded plastic over passivated chip
- ◇ Terminals: Solder plated, solderable per ML-STD-750, Method 2026
- ◇ Polarity: color band denotes cathode end
- ◇ Weight: 0.003 ounces, 0.093 gram

DO - 214AA(SMB)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

| | | RS3AB | RS3BB | RS3DB | RS3GB | RS3JB | RS3KB | RS3MB | UNITS |
|---|-----------------|--------------|-------|-------|-------|-------|-------|-------|--------------------|
| Maximum recurrent peak reverse voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC blocking voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 100 | V |
| Maximum average forward rectified current at $T_L=90^\circ\text{C}$ | $I_{F(AV)}$ | 3.0 | | | | | | | A |
| Peak forward surge current @ $T_L = 110^\circ\text{C}$ 8.3ms single half-sine-wave superimposed on rated load | I_{FSM} | 100.0 | | | | | | | A |
| Maximum instantaneous forward voltage at 3.0A | V_F | 1.30 | | | | | | | V |
| Maximum DC reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=125^\circ\text{C}$ | I_R | 5.0 200.0 | | | | | | | μA |
| Maximum reverse recovery time (NOTE 1) | t_{rr} | 150 | | | 250 | | 500 | | ns |
| Typical junction capacitance (NOTE 2) | C_J | 32 | | | | | | | pF |
| Typical thermal resistance (NOTE 3) | $R_{\theta JA}$ | 40.0 | | | | | | | $^\circ\text{C/W}$ |
| Operating junction and storage temperature range | $T_J T_{STG}$ | -55-----+150 | | | | | | | $^\circ\text{C}$ |

NOTE: 1.Reverse recovery time test conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{rr}=0.25A$

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2. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts

3. Thermal resistance from junction to ambient and junction to lead P.C.B.mounted on 0.2"X0.2"(5.0X5.0mm²) copper pad areas

FIG.1 – FORWARD DERATING CURVE

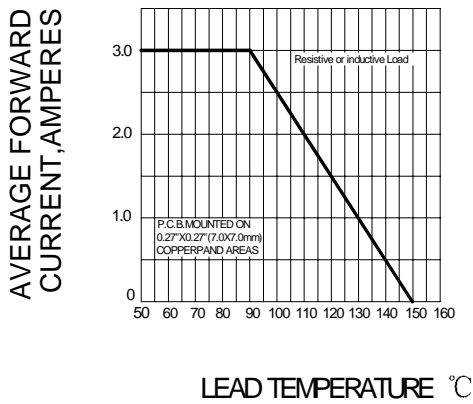


FIG.2 PEAK FORWARD SURGE CURRENT

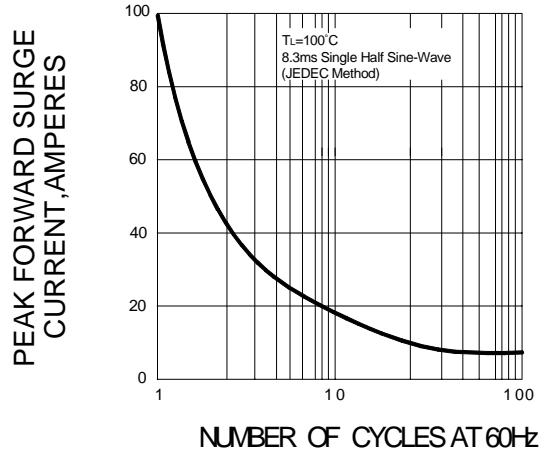


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

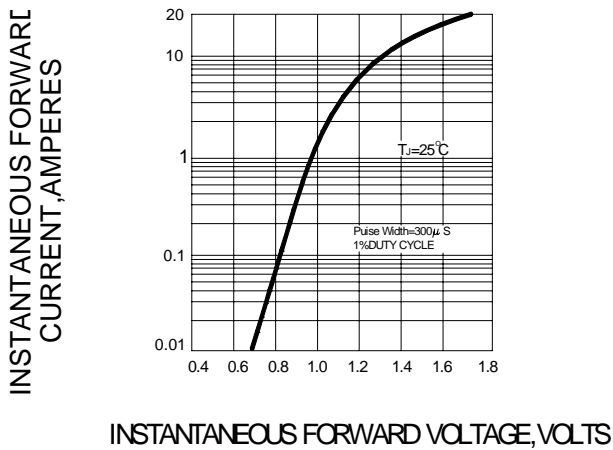


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

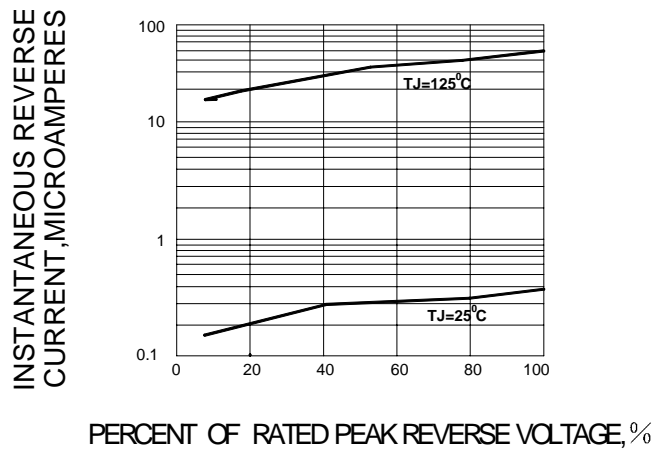


FIG.5-TYPICAL JUNCTION CAPACTANCE

