

SURFACE MOUNT RECTIFIERS

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

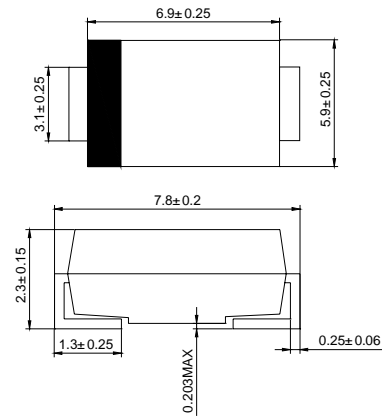
FEATURES

- ◇ Plastic package has underwriters laboratory 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: 260°C/10 seconds at terminals

MECHANICAL DATA

- ◇ Case: JEDEC DO-214AB, molded plastic over passivated chip
- ◇ Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- ◇ Polarity: Color band denotes cathode end
- ◇ Weight: 0.007 ounces, 0.21 gram

DO - 214AB(SMC)



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

| | | S3A | S3B | S3D | S3G | S3J | S3K | S3M | UNITS |
|--|-----------------|--------------|-----|-----|-----|-----|-----|------|--------------------|
| Maximum recurrent peak reverse voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | V_{RWS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum average forward rectified current @ $T_L = -90^\circ\text{C}$ | $I_{F(AV)}$ | 3.0 | | | | | | | A |
| Peak forward surge current @ $T_L = 110^\circ\text{C}$ 8.3ms single half-sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 100.0 | | | | | | | A |
| Maximum Instantaneous forward voltage at 3.0 A | V_F | 1.15 | | | | | | | V |
| Maximum DC reverse current @ $T_A = 25^\circ\text{C}$ at rated DC blocking voltage @ $T_A = 125^\circ\text{C}$ | I_R | 1.0 125.0 | | | | | | | μA |
| Typical junction capacitance (NOTE 2) | C_J | 30.0 | | | | | | | pF |
| Typical thermal resistance (NOTE 3) | $R_{\theta JA}$ | 53.0 | | | | | | | $^\circ\text{C/W}$ |
| | $R_{\theta JL}$ | 16.0 | | | | | | | |
| Operating junction and storage temperature range | $T_J T_{STG}$ | -55-----+150 | | | | | | | $^\circ\text{C}$ |

NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts

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2. Thermal resistance from junction to ambient and junction to lead P.C.B. mounted on 0.27"X0.27"(7.0X7.0mm2) copper pad areas

FIG.1 – FORWARD DERATING CURVE

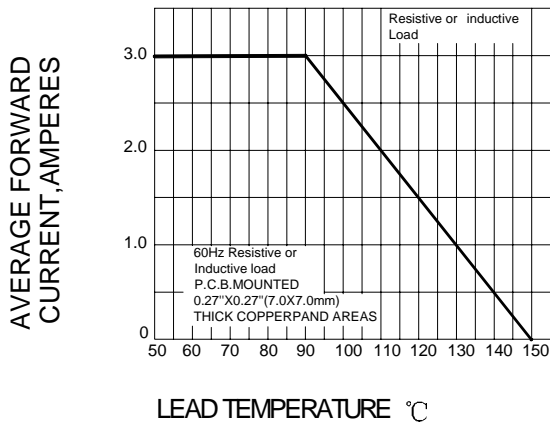


FIG.2 PEAK FORWARD SURGE CURRENT

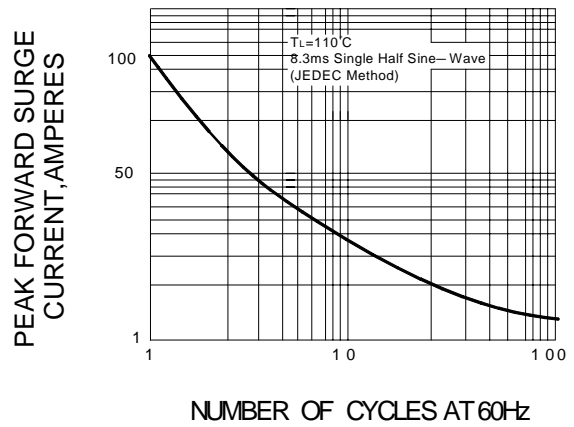


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

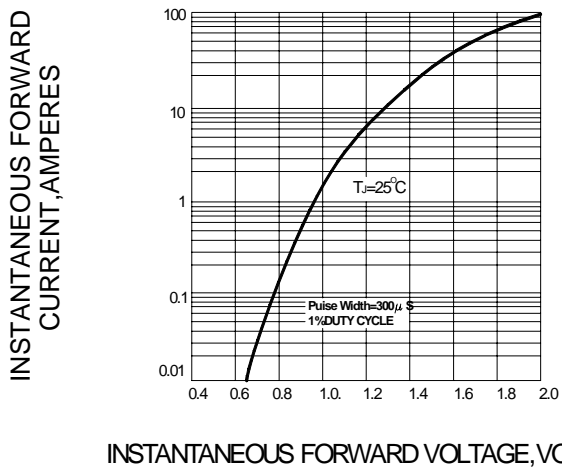


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

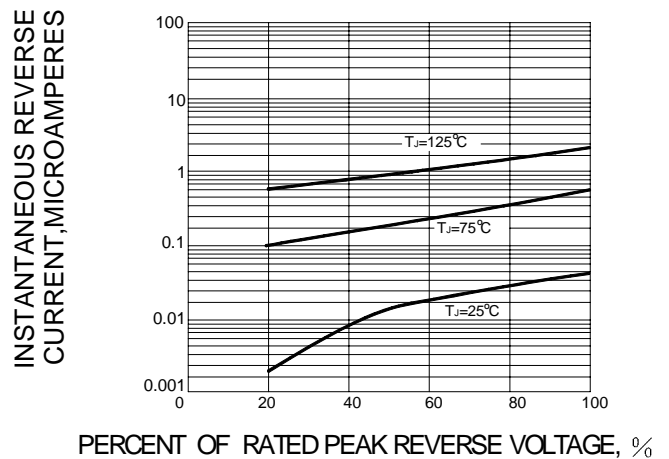


FIG.5-TYPICAL JUNCTION CAPACITANCE

