

SURFACE MOUNT RECTIFIERS

REVERSE VOLTAGE: 50 --- 1000 V
CURRENT: 2.0 A

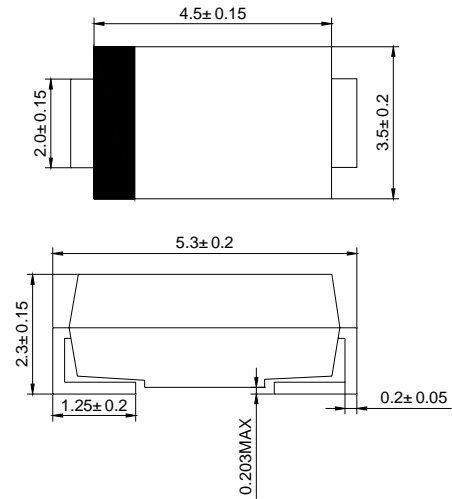
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief, ideal for automated placement
- High current capability
- 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 MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.003 ounces, 0.093 gram

DO - 214AA(SMB)



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

| | | S2A | S2B | S2D | S2G | S2J | S2K | S2M | 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 at $T_L=100^\circ\text{C}$ | $I_{(AV)}$ | 2.0 | | | | | | | 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} | 50.0 | | | | | | | A |
| Maximum Instantaneous Forward Voltage at 2.0A | 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 |
| Maximum reverse recovery time (NOTE 1) | t_{rr} | 2.0 | | | | | | | μS |
| Typical junction capacitance (NOTE 2) | C_J | 30.0 | | | | | | | pF |
| Typical thermal resistance (NOTE 3) | R_{JA} R_{JL} | 53.0 16.0 | | | | | | | $^\circ\text{C/W}$ |
| Operating junction and storage temperature range | $T_J T_{STG}$ | -55-----+150 | | | | | | | $^\circ\text{C}$ |

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

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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 0.27"X0.27" (7.0X7.0mm²) copper pad areas

FIG.1 – FORWARD DERATING CURVE

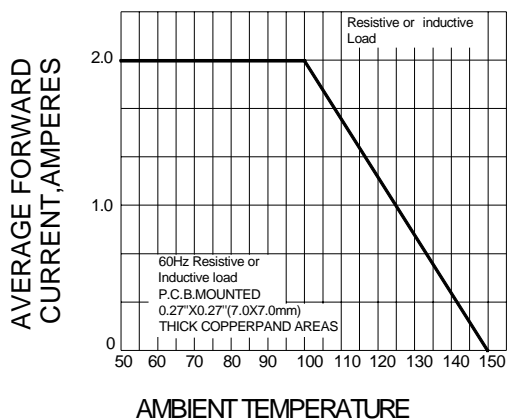


FIG.2 PEAK FORWARD SURGE CURRENT

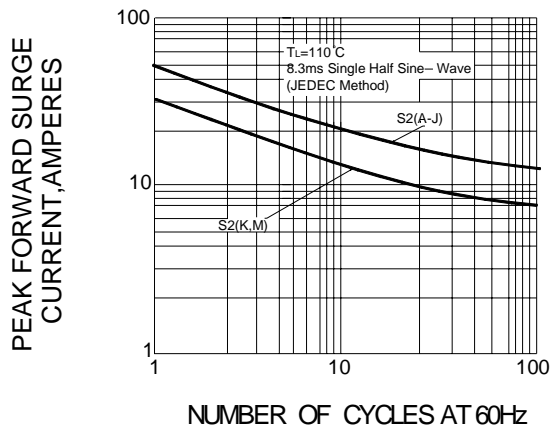


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

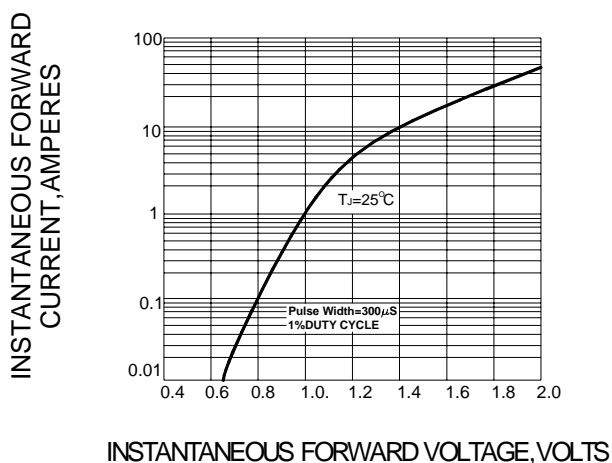


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

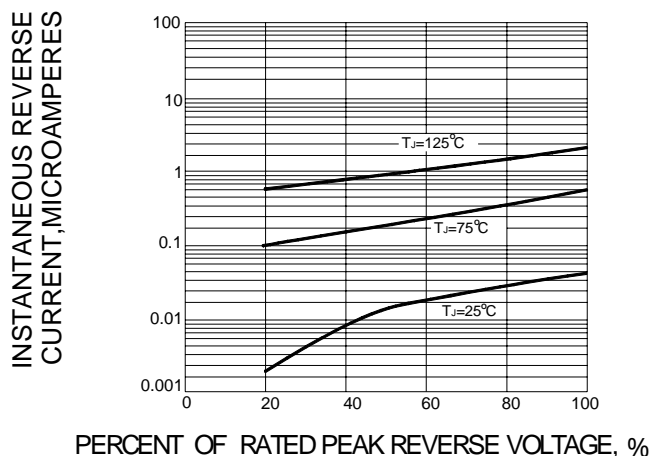


FIG.5-TYPICAL JUNCTION CAPACITANCE

