

SURFACE MOUNT RECTIFIERS

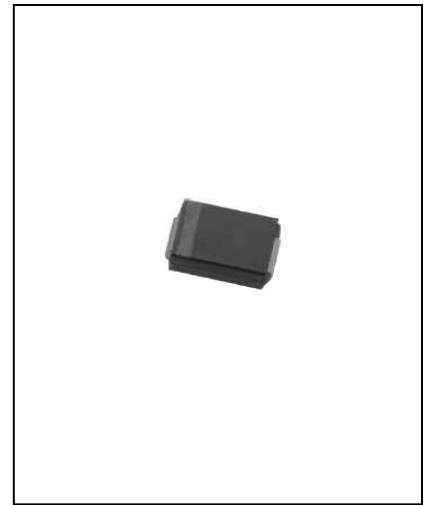
S1A--S1M

FEATURES

- Low profile package
- For surface mounted applications
- Built-in strain relief, ideal for automated placement
- Plastic package has Underwriters Laboratory Flammability Classification
- High temperature soldering: 260°C/10 seconds at terminals



Lead-free



MECHANICAL DATA

- Case: JEDEC SMA, molded plastic over passivated chip
- Terminals: Solder Plated, solderable per MIL-STD- 750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.002 ounces, 0.064 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

		S1A	S1B	S1D	S1G	S1J	S1K	S1M	UNITS
Maximum repetitive 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 $T_L=110^\circ\text{C}$	$I_{F(AV)}$	1.0							V
Peak forward surge current @ $T_L = 110^\circ\text{C}$ 8.3ms single half-sine-wave superimposed on rated load(JEDEC Method)	I_{FSM}	30.0							A
Maximum Instantaneous Forward Voltage at 1.0A	V_F	1.1							A
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 50							μA
Typical junction capacitance (NOTE 1)	C_J	12.0							pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	50.0							$^\circ\text{C}/\text{W}$
Operating junction and storage temperature range	T_{JTS} G	-55-----+175							$^\circ\text{C}$

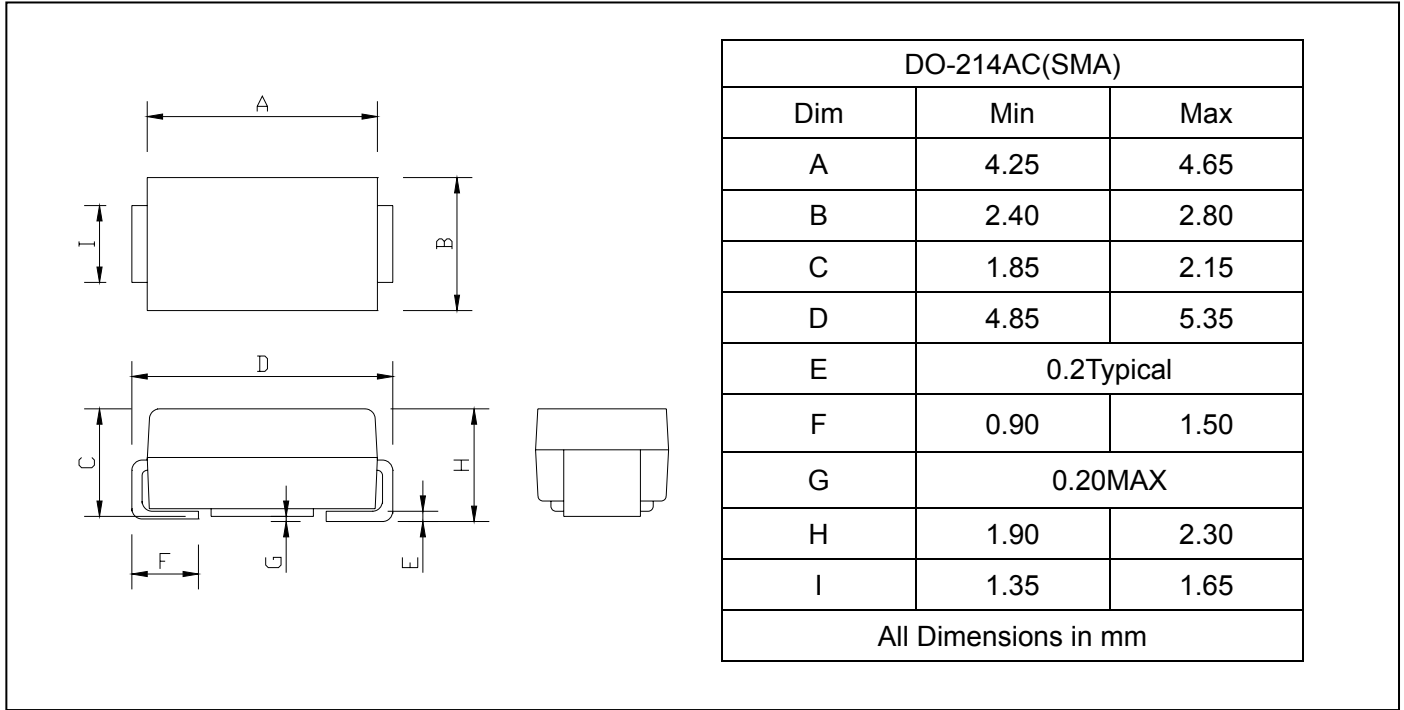
NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts

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

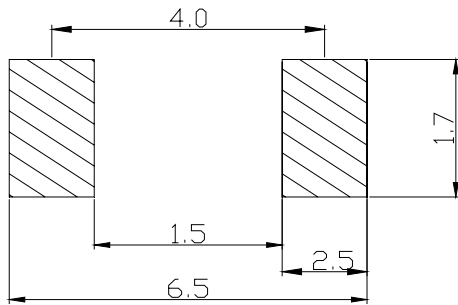
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S1A--S1M

PACKAGE OUTLINE DIMENSIONS



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
S1A--S1M	DO-214AC(SMA)	5000/Tape&Reel

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S1A--S1M

FIG.1 – FORWARD DERATING CURVE

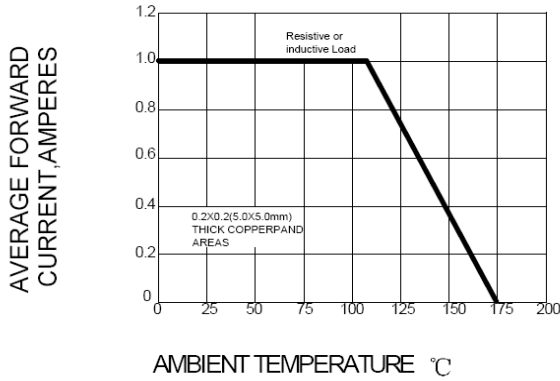


FIG.2 PEAK FORWARD SURGE CURRENT

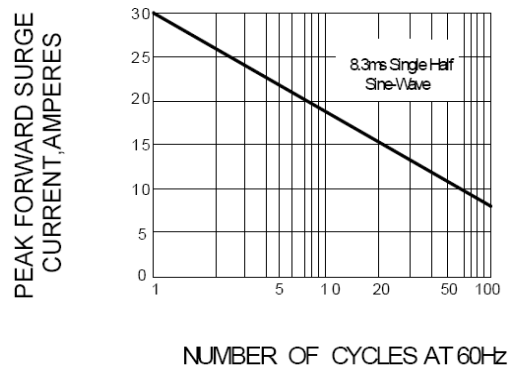


FIG.3 -- TYPICAL FORWARD CHARACTERISTICS

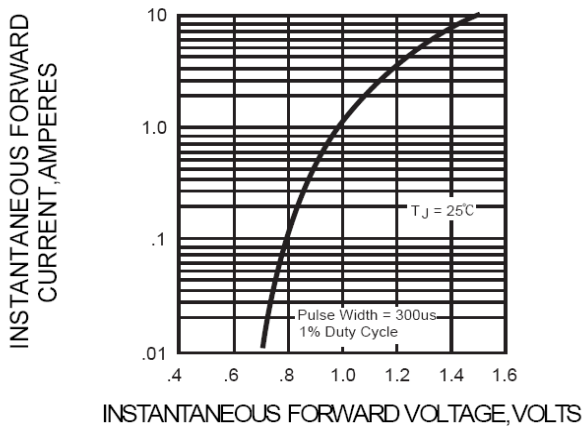


FIG.4 -- TYPICAL REVERSE CHARACTERISTICS

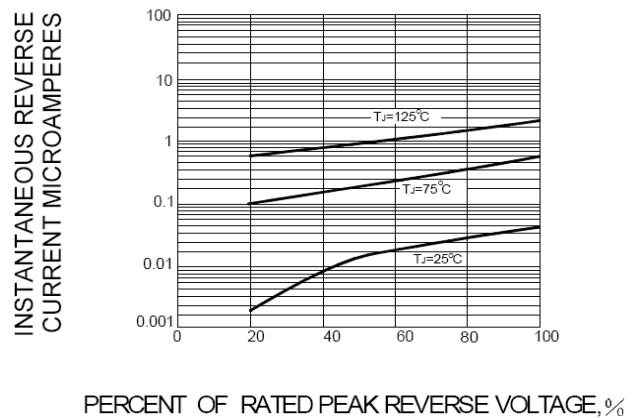


FIG.5-TYPICAL JUNCTION CAPACITANCE

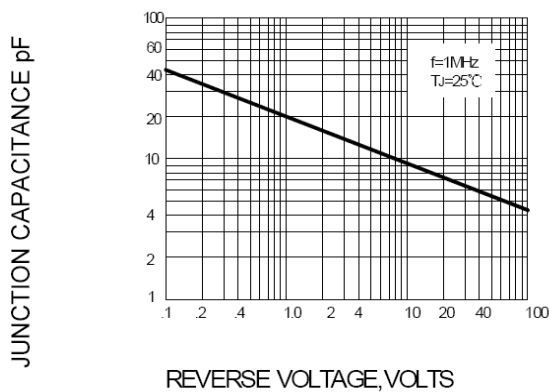


FIG.6-TRANSIENT THERMAL IMPEDANCE

