

SURFACEMOUNTRECTIFIERS

S3A--S3M

FEATURES

- Low profile package
- For surface mounted applications
- High current capability
- Built-in strain relief, ideal for automated placement
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High temperature soldering: 250°C/10 seconds at terminals



Lead-free



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

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

		S3A	S3B	S3C	S3D	S3G	S3J	S3K	S3M	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	400	600	800	1000	V
Maximum RMS voltage	V_{RWS}	35	70	105	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	400	600	800	1000	V
Maximum average forward rectified current at $T_L=100^\circ\text{C}$	$I_{F(AV)}$	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								A
Maximum Instantaneous Forward Voltage at 3.0A	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	10.0 125								μA
Typical junction capacitance (NOTE 1)	C_J	30								pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$ $R_{\theta JL}$	53.0 16.0								$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J T_{STG}	-55-----+150								$^\circ\text{C}$

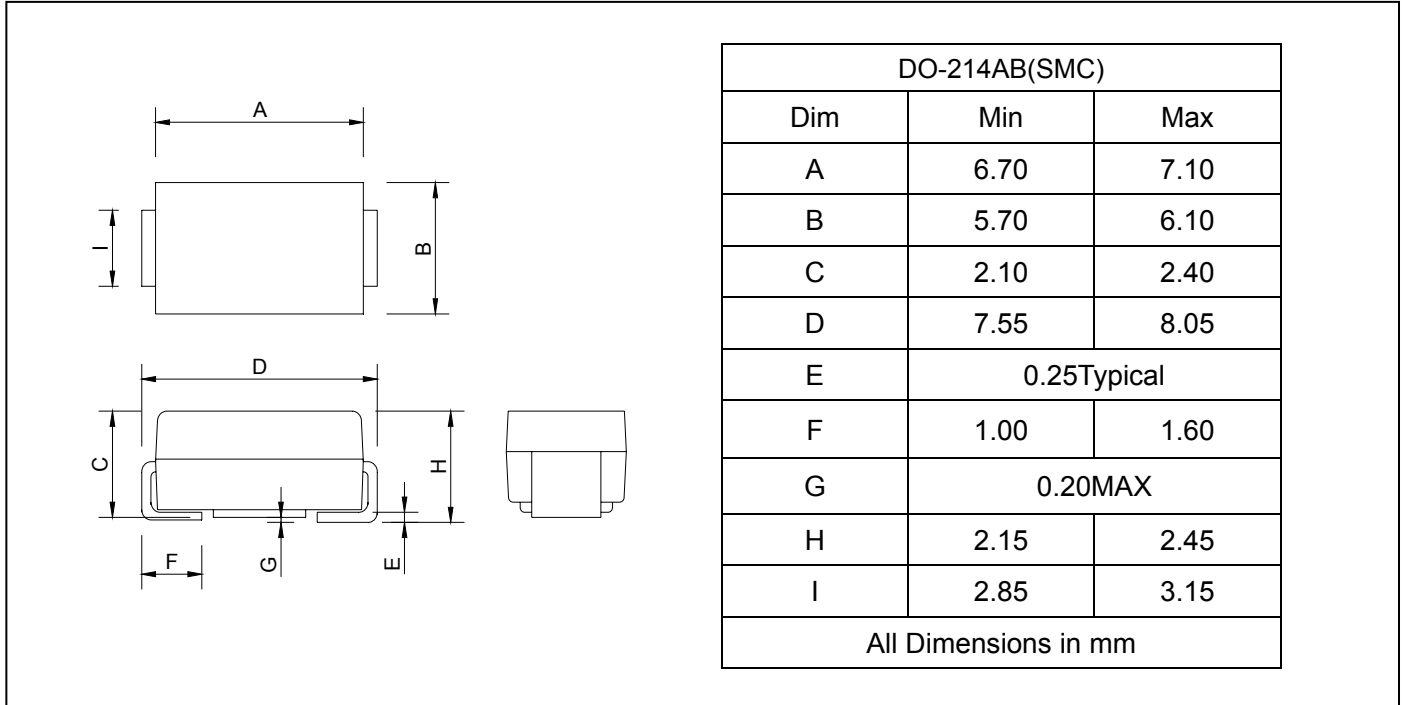
NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts

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

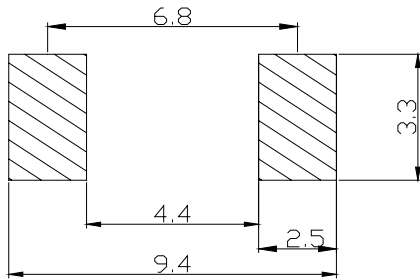
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PACKAGE OUTLINE DIMENSIONS



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
S3A--S3M	DO-214AB(SMC)	3000/Tape&Reel

SURFACEMOUNTRECTIFIERS

S3A--S3M

FIG.1 -- FORWARD DERATING CURVE

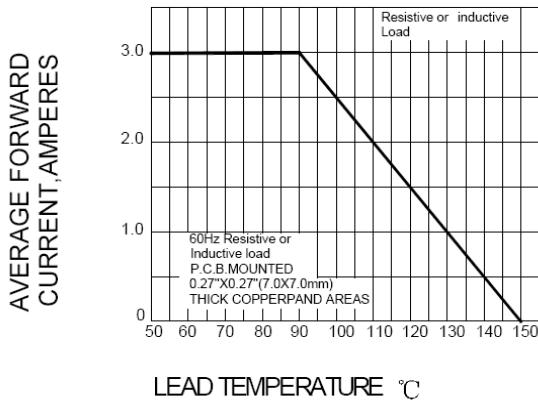


FIG.2 PEAK FORWARD SURGE CURRENT

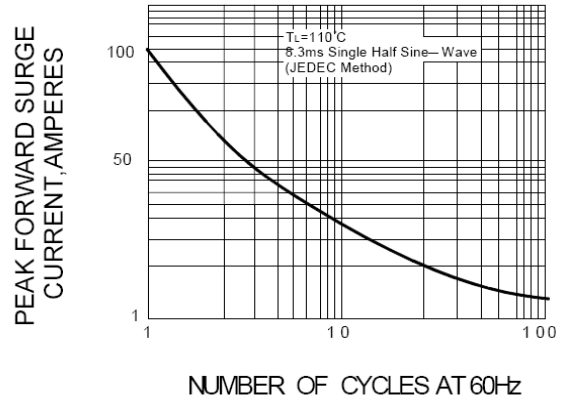


FIG.3 -- TYPICAL FORWARD CHARACTERISTICS

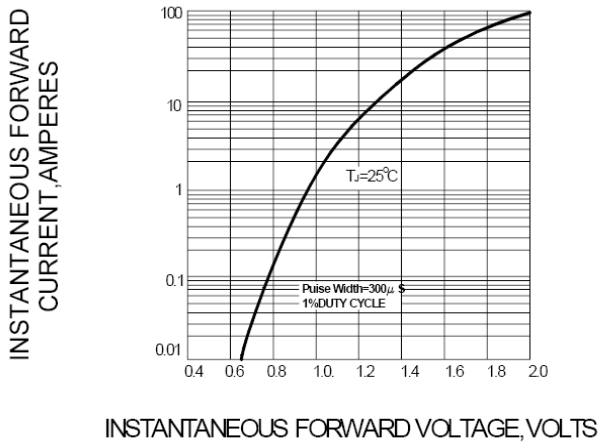


FIG.4 -- TYPICAL REVERSE CHARACTERISTICS

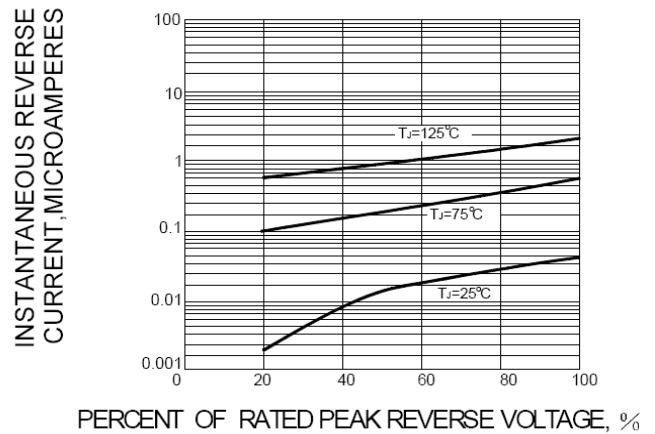


FIG.5 TYPICAL JUNCTION CAPACITANCE

