

Surface Mount Rectifiers

S2AA--S2MA

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 temperature soldering: 250°C/10 seconds at terminals



Lead-free



MECHANICAL DATA

- Case: JEDEC DO-214AC, 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 (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	S2AA	S2BA	S2DA	S2GA	S2JA	S2KA	S2MA	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	1000	V
Maximum average forward rectified current @ $T_L=90^\circ\text{C}$	$I_{(AV)}$	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							A

Thermal Characteristics

Characteristic	Symbol	S2AA	S2BA	S2DA	S2GA	S2JA	S2KA	S2MA	UNITS
Typical junction capacitance (NOTE 1)	C_J	20							pF
Typical thermal resistance (NOTE 2)	$R_{\theta JC}$	50							°C/W
Operating junction and storage temperature range	T_J	- 55 ---- + 150							°C
Storage temperature range	T_{STG}	- 55 ---- + 150							°C

Electrical Characteristics (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	S2AA	S2BA	S2DA	S2GA	S2JA	S2KA	S2MA	UNITS
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	5.0 125							μA

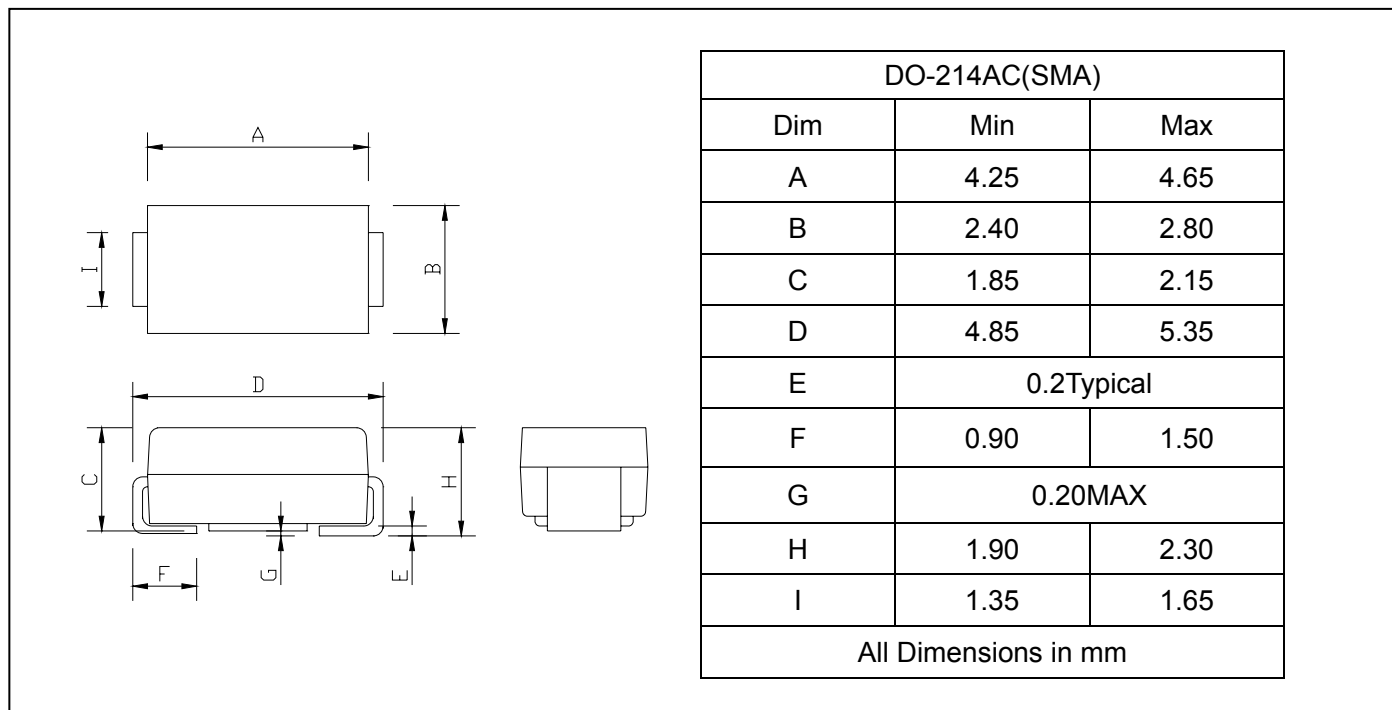
NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts

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

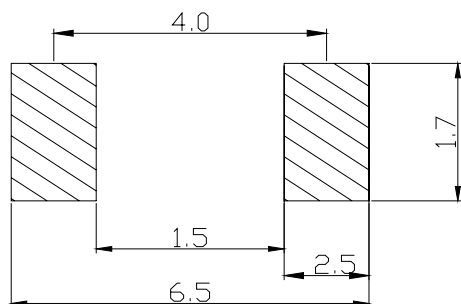
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PACKAGE OUTLINE DIMENSIONS



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
S2AA--S2MA	DO-214AC(SMA)	5000/Tape&Reel



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S2AA--S2MA

FIG.1 -- FORWARD DERATING CURVE

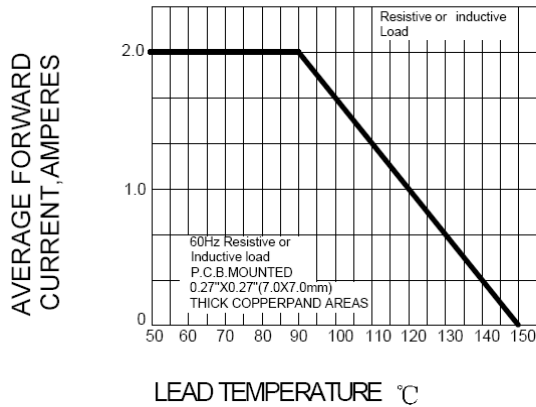


FIG.2 PEAK FORWARD SURGE CURRENT

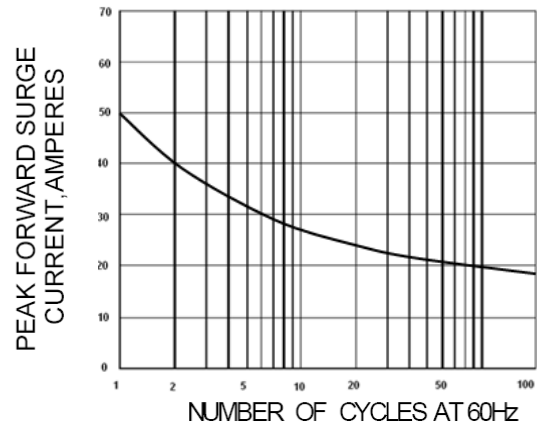


FIG.3 -- TYPICAL FORWARD CHARACTERISTICS

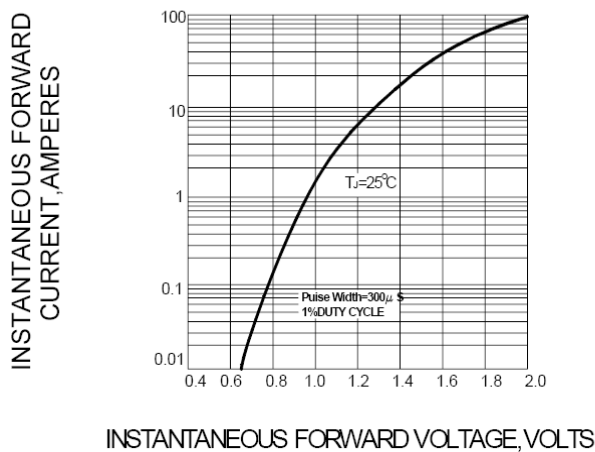


FIG.4 -- TYPICAL REVERSE CHARACTERISTICS

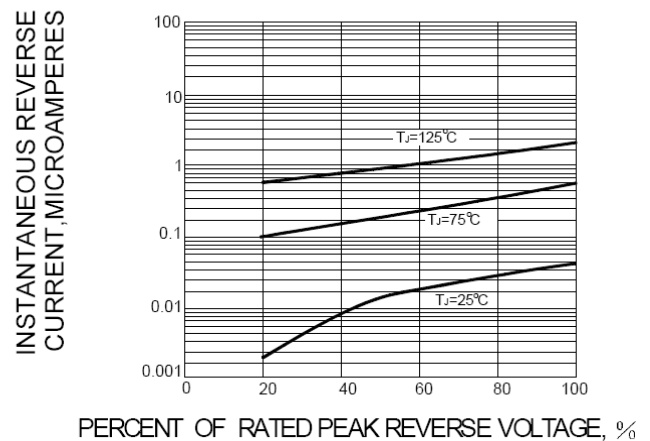


FIG.5-TYPICAL JUNCTION CAPACITANCE

