

Surface Mount Rectifiers

RS1AB--RS1MB

FEATURES

- Low profile package
- For surface mounted applications
- Built-in strain relief, ideal for automated placement
- Plastic package has underwriters, laborator flammability classification 94V-0
- High temperature soldering: 250°C/10 seconds at terminals



Lead-free



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

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

		RS1AB	RS1BB	RS1DB	RS1GB	RS1JB	RS1KB	RS1MB	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°C	I _{F(AV)}	1.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	I _{FSM}	30.0							A
Maximum instantaneous forward voltage at 1.0 A	V _F	1.30							V
Maximum reverse current @ T _A =25°C at rated DC blocking voltage @ T _A =125°C	I _R	5.0 50.0							μ A
Typical reverse recovery time (Note1)	t _{rr}	150				250	500		ns
Typical junction capacitance (Note2)	C _J	10					7.0		p F
Typical thermal resistance (Note3)	R _{θJA}	105							°C/W
	R _{θJL}	32							
Operating junction and storage temperature range	T _J T _{STG}	- 55 ----- + 150							°C

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

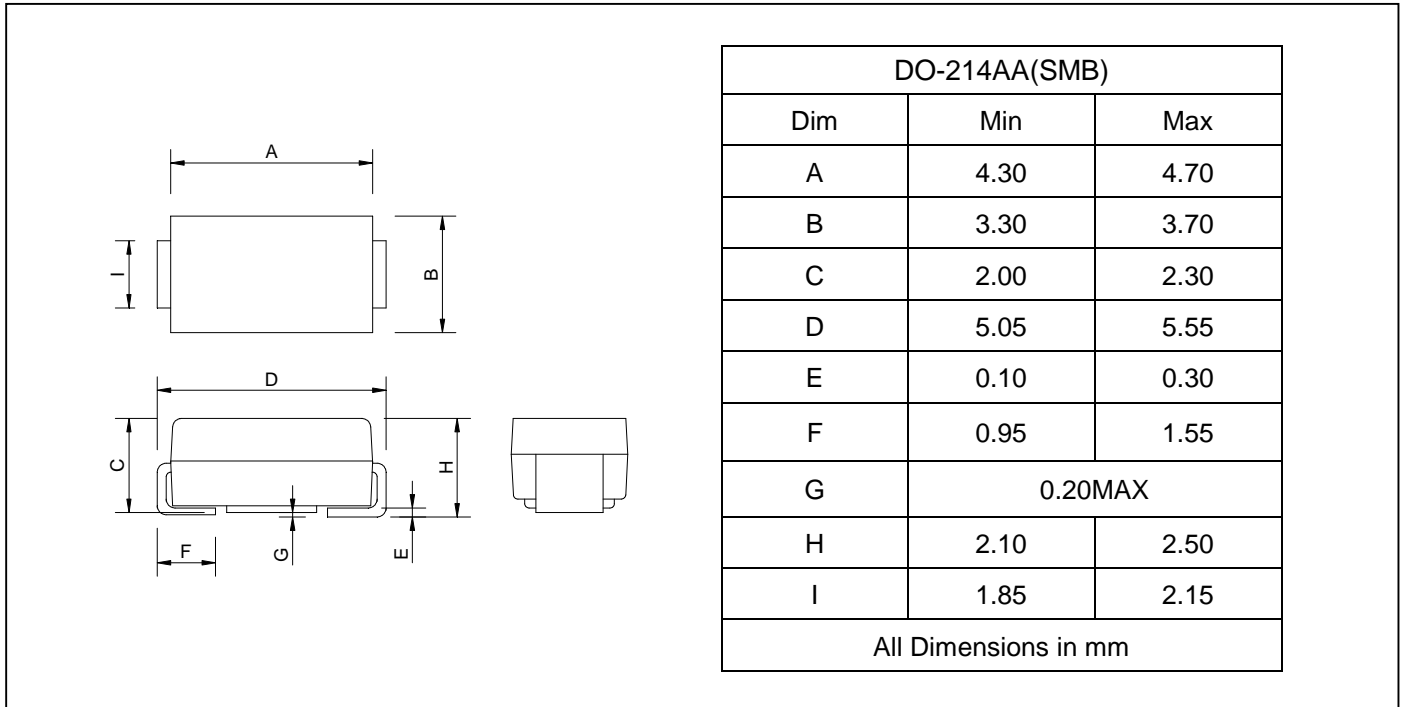
2. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts

3. Thermal resistance from junction to ambient and junction to lead P.C.B. mounted on 0.2"X0.2"(5.0X5.0mm²) copper pad areas

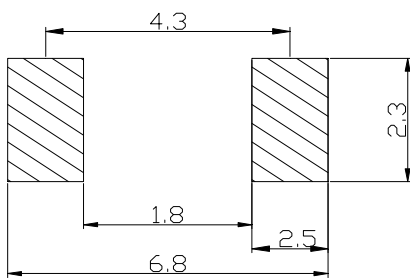
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PACKAGE OUTLINE DIMENSIONS



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
RS1AB--RS1MB	DO-214AA(SMB)	3000/Tape&Reel

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Fig. 1 — Forward Current Derating Curve

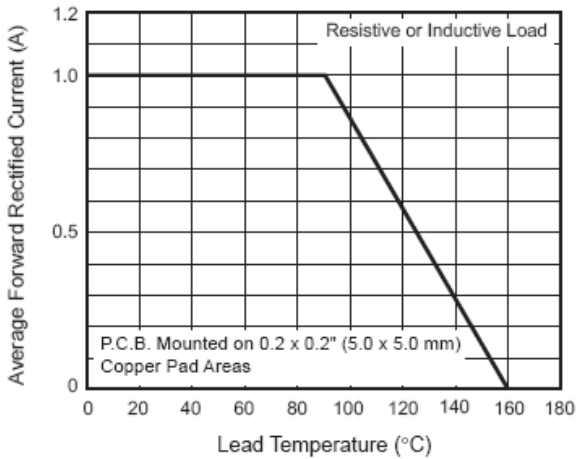


Fig. 2 — Maximum Non-Repetitive Peak Forward Surge Current

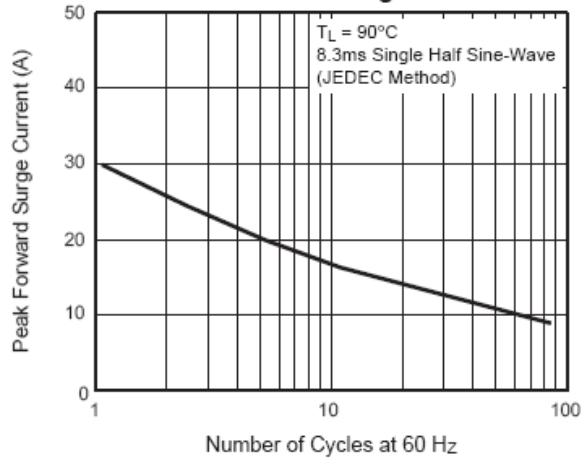


Fig. 3 — Typical Instantaneous Forward Characteristics

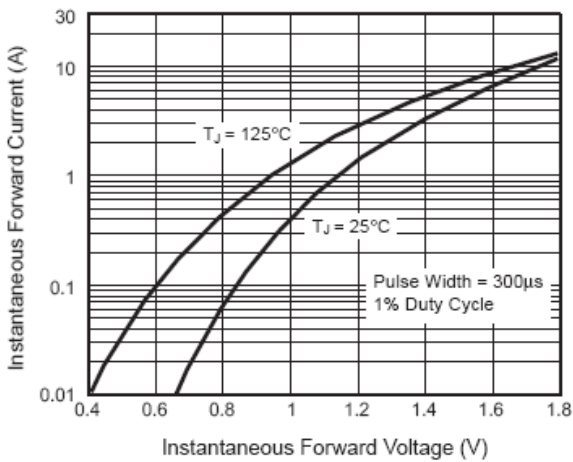


Fig. 4 — Typical Reverse Characteristics

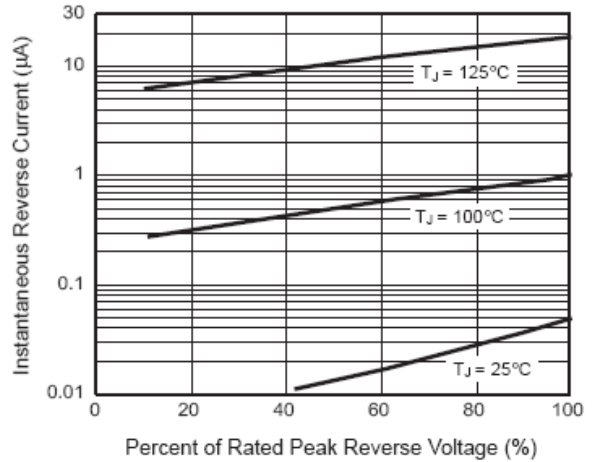


Fig. 5 — Typical Junction Capacitance

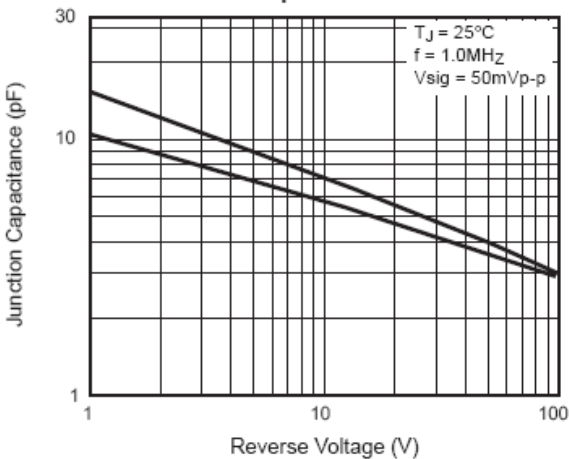


Fig. 6 — Typical Transient Thermal Impedance

