RS1AB-RS1MB

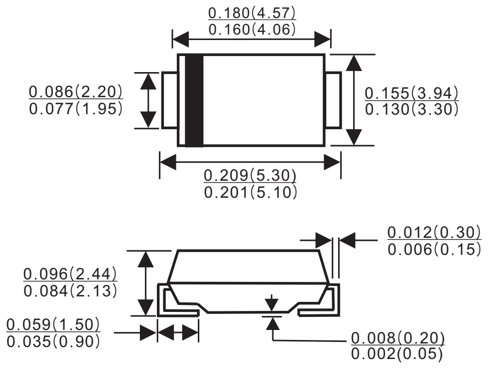
Surface Mount Rectifiers

Features

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

REVERSE VOLTAGE: 50 --- 1000 V
CURRENT: 1.0A

SMB/DO-214AA



Dimensions in inches and(millimeters)

Mechanical Data

- ✧ Case:JEDEC DO-214AA,molded plastic over passivated chip
- ✧ 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

Parameter	**Symbol**	RA1AB	RS1BD	RS1DB	RS1GB	RS1JB	RS1KB	RS1MB	UNITS
Marking code		RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	
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 forword 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 1.0A	V_F	1.30							V
Maximum DC reverse current @T_A=25°C at rated DC blocking voltage @T_A=125°C	I_R	5.0 50.0							μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	150				250	500		ns
Typical junction capacitance (NOTE 2)	C_J	10					7.0		pF
Typical thermal resitance (NOTE 3)	$R_{\theta JA}$ $R_{\theta JL}$	105 32							°C/W
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"(5.0X5.0mm^2) copper pad areas

Ratings AND Charactieristic Curves

Fig. 1 — Forward Current Derating Curve

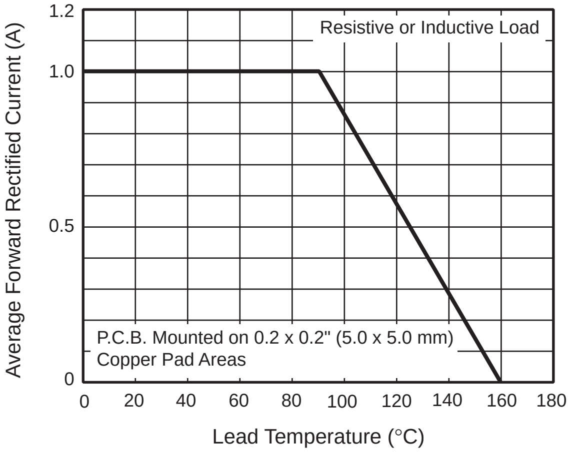


Fig. 2 — Maximum Non-Repetitive Peak Forward Surge Current

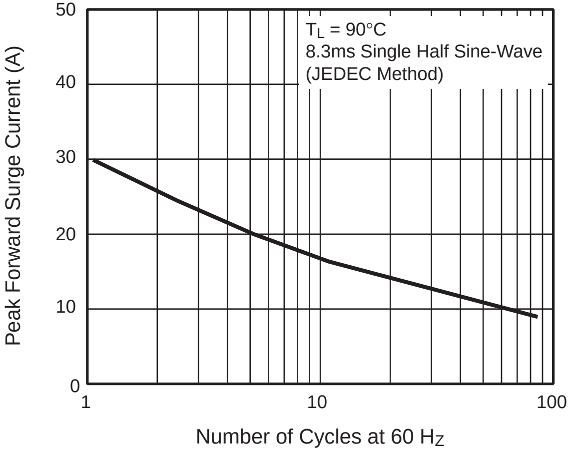


Fig. 3 — Typical Instantaneous Forward Characteristics

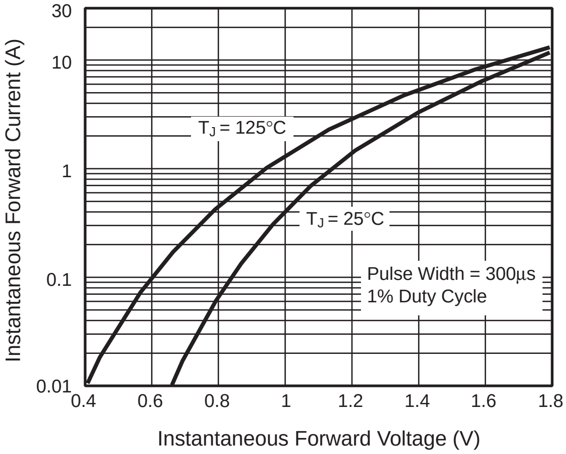


Fig. 4 — Typical Reverse Characteristics

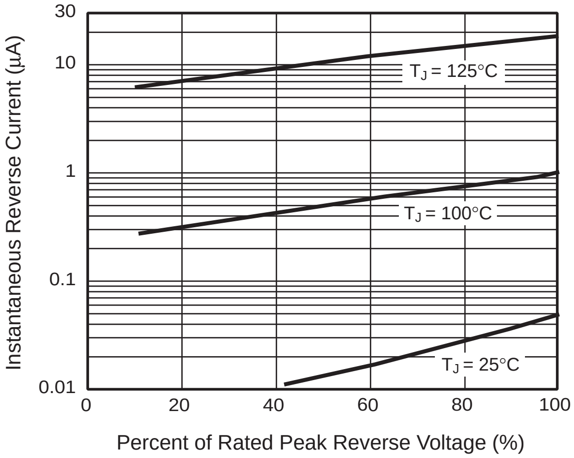


Fig. 5 — Typical Junction Capacitance

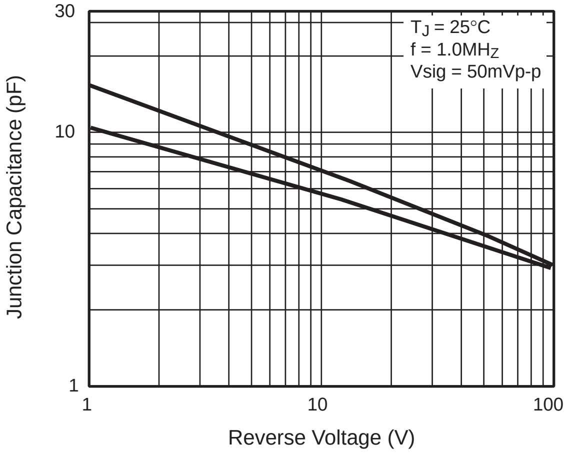
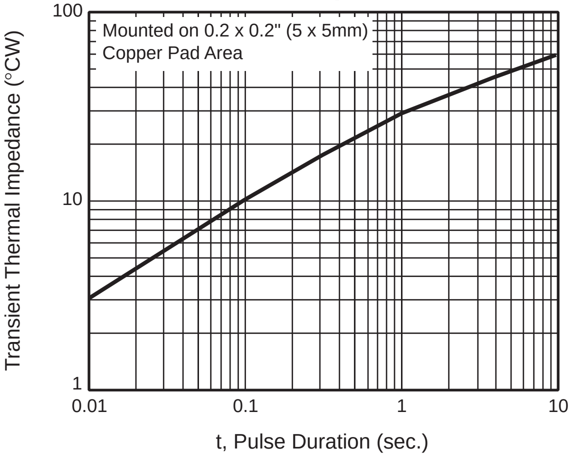


Fig. 6 — Typical Transient Thermal Impedance



PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SMB	3000/REEL	48000	36X35.8X36.5	12.00	11.00