

RS1A~RS1M

ROHS

Surface Mount Fast Recovery Rectifiers

Features

- ◆ For surface mounted applications
- ◆ Low profile package
- ◆ Glass passivated chip junction
- ◆ Easy to pick and place
- ◆ Fast reverse recovery time
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

Mechanical Data

- ◆ Case: SMA
- ◆ Quantity Per Reel : 2,000pcs
- ◆ Approx. Weight: 60mg / 0.0021oz
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

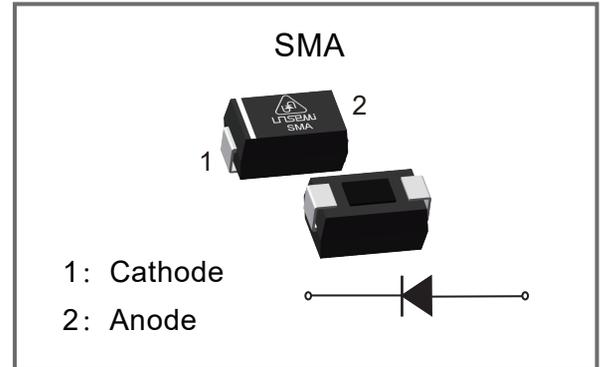
Parameter	Symbol	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	Units
Maximum Repetitive Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at Tc=125°C	IF(AV)	1.0							A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load	IFSM	30							A
Maximum Forward Voltage at 1A	VF	1.3							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	Ta=25°C	5							μA
	Ta=125°C	50							μA
Typical Junction Capacitance at VR=4V, f=1MHz	Cj	15							pF
Maximum Reverse Recovery Time ⁽¹⁾	trr	150				250	500	nS	
Typical Thermal Resistance ⁽²⁾	R _{θJA}	75							°C/W
Operating and Storage Temperature Range	TJ, Tstg	-55 ~ +150							°C

Note:(1) Measured with IF=0.5A, IR=1A, Irr=0.25A

(2) P.C.B. mounted with 1.0" X 1.0" (2.54 X 2.54cm) copper pad areas.



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Electrical Characteristics Curves

Fig.1 Forward Current Derating Curve

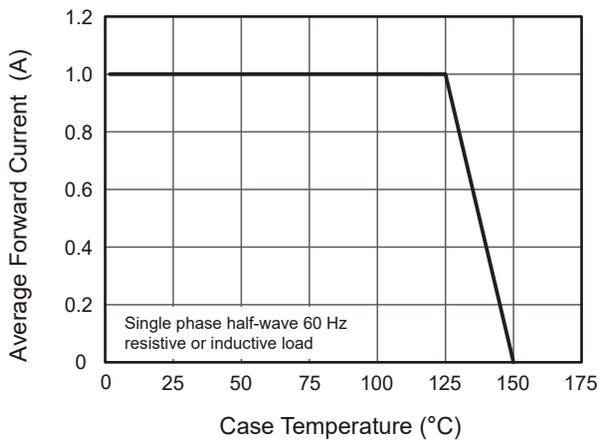


Fig. 2 Typical Reverse Characteristics

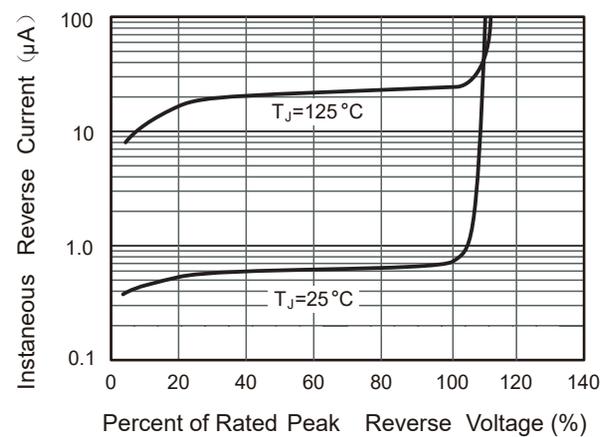


Fig.3 Typical Instantaneous Forward Characteristic

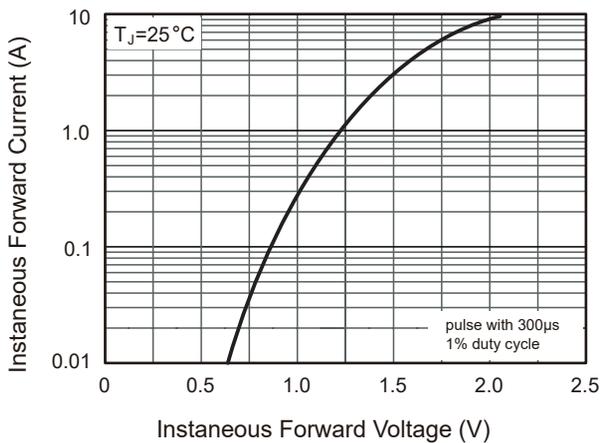


Fig. 4 Typical Junction Capacitance

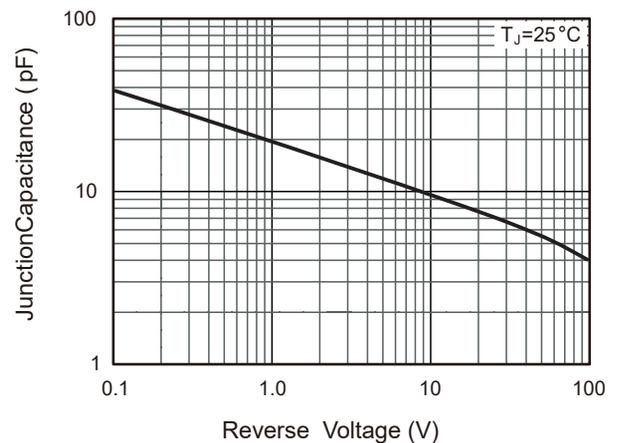
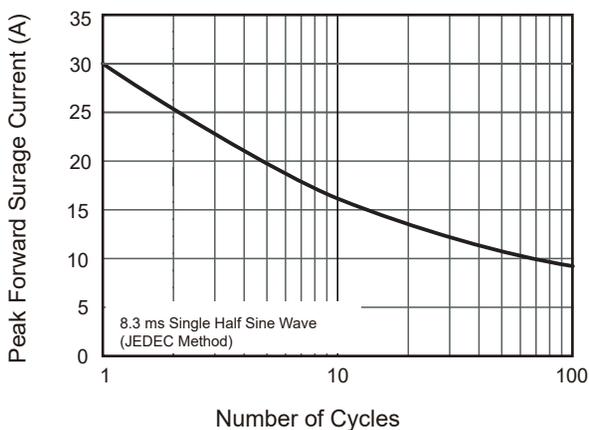
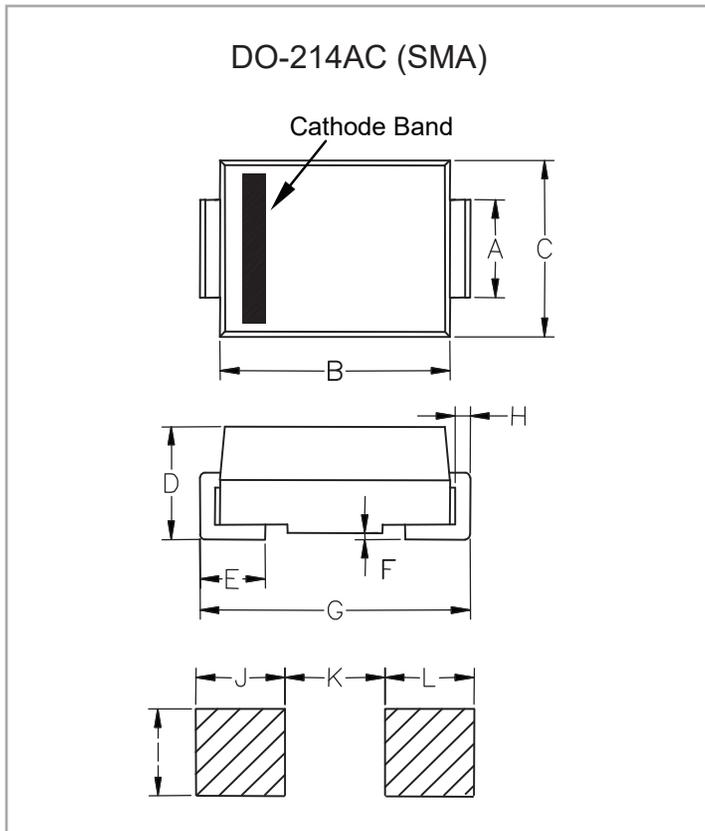


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



Package Outline & Dimensions (Units: mm / in)



Dimensions	Inches		Millimeters	
	Min.	Max.	Min.	Max.
A	0.049	0.064	1.230	1.630
B	0.162	0.179	4.10	4.550
C	0.099	0.109	2.510	2.760
D	0.077	0.089	1.960	2.260
E	0.030	0.060	0.750	1.510
F	-	0.008	-	0.203
G	0.192	0.206	4.87	5.220
H	0.006	0.012	0.152	0.305
I	0.070	-	1.800	-
J	0.082	-	2.100	-
K	-	0.090	-	2.300
L	0.082	-	2.100	-

Marking

Type Number	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M
Making	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M

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