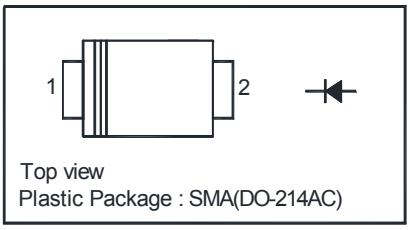
RS1A THRU RS1M

Surface Mount Fast Recovery Rectifiers
Reverse Voltage - 50 to 1000 V
Forward Current - 1 A

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top view
Plastic Package : SMA(DO-214AC)

Features
- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- Fast reverse recovery time

Mechanical Data
- **Case:** SMA (DO-214AC) molded plastic
- **Terminals:** Solderable per MIL-STD-750, Method 2026

Absolute Maximum Ratings and Characteristics
Ratings at 25℃ ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbols	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	Units
Maximum Repetitive 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 Current at T_C = 125℃	$I_{F(AV)}$	1							A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	30							A
Maximum Forward Voltage at I_F = 1A	V_F	1.3							V
Maximum DC Reverse Current at T_J = 25℃ at Rated DC Blocking Voltage at T_J = 125℃	I_R	5 50							μA
Maximum Reverse Recovery Time [1]	t_{rr}	150				250	500		ns
Typical Junction Capacitance at V_R = 4 V, f = 1 MHz	C_j	15							pF
Typical Thermal Resistance [2]	$R_{\theta JA}$	75							℃/W
Operating and Storage Temperature Range	T_j, T_{stg}	- 55 to + 150							℃

[1] Measured with I_F = 0.5 A, I_R = 1 A, I_{rr} = 0.25 A.
[2] P.C.B. mounted with 1.0 X 1.0" (2.54 X 2.54 cm) copper pad areas.

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Electrical Characteristic Curves

Fig.1 Forward Current Derating Curve

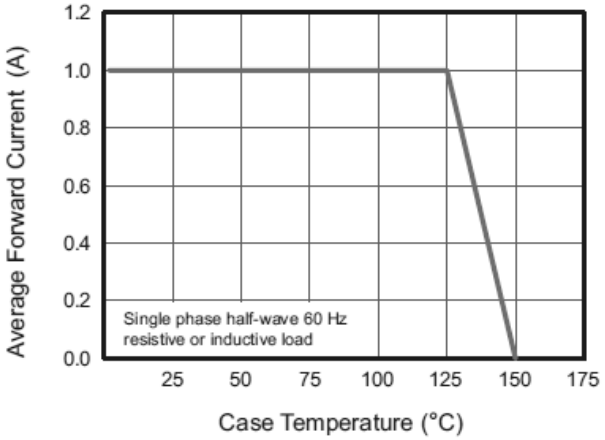


Fig.2 Typical Reverse Characteristics

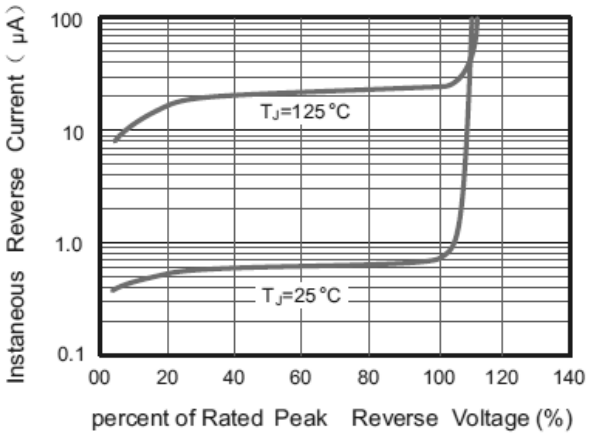


Fig.3 Typical Instaneous Forward Characteristics

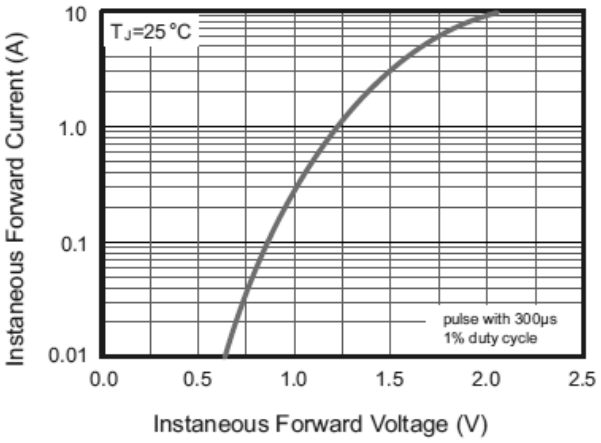


Fig.4 Typical Junction Capacitance

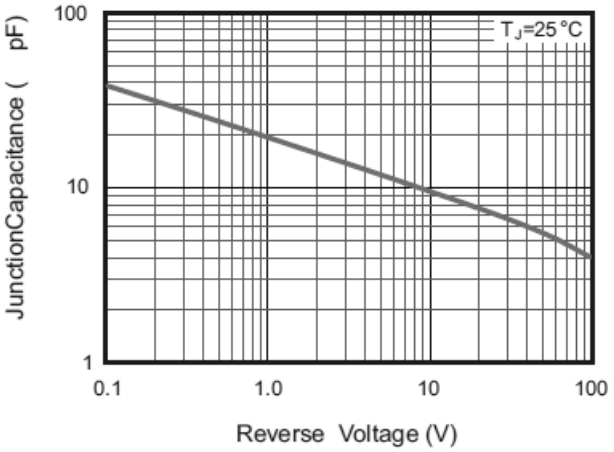
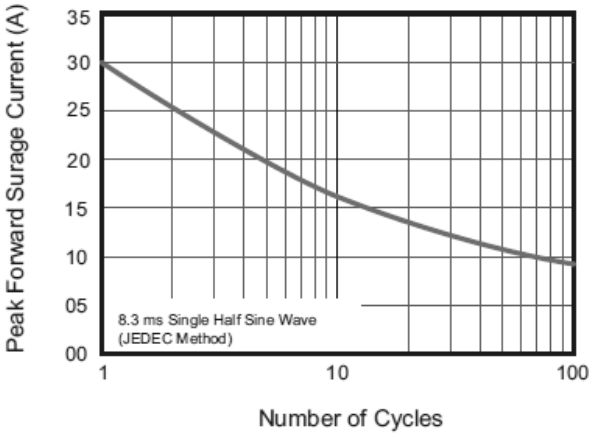
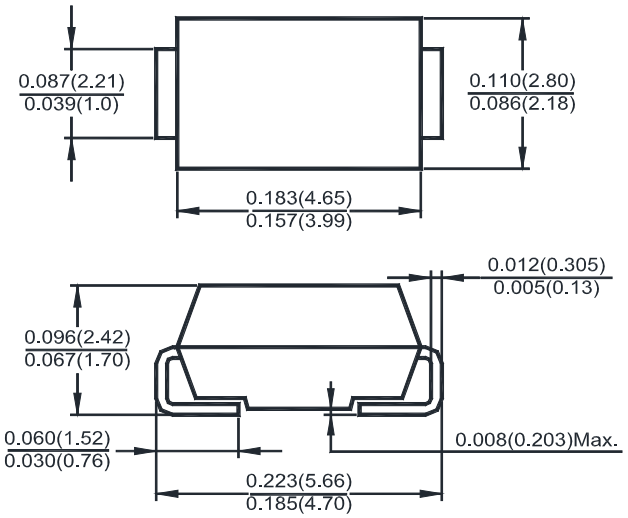


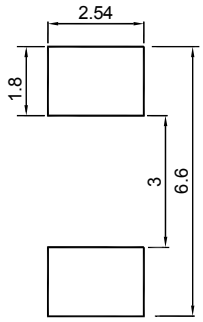
Fig.5 Maximum Non-Repetitive Peak Forward Surage Current



Package Outline Dimensions in inches (millimeters) SMA(DO-214AC)



Recommended Soldering Footprint



Marking information

" RS1* " = Part No.

Type	Marking	Type	Marking	Type	Marking	Type	Marking
RS1A	RS1A	RS1B	RS1B	RS1D	RS1D	RS1G	RS1G
RS1J	RS1J	RS1K	RS1K	RS1M	RS1M		

" III " = Cathode line

Font type: Arial

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