

# RS1AD THRU RS1MD

## Surface Mount Fast Recovery Rectifiers

Reverse Voltage - 50 to 1000 V

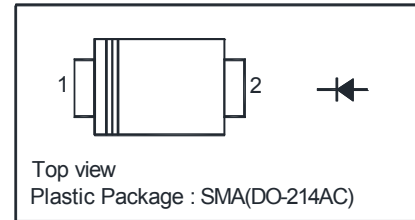
Forward Current - 1 A

### Features

- High current capability
- High surge current capability
- High reliability
- Low reverse current
- Fast switching for high efficiency

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



### Mechanical Data

- **Case:** SMA (DO-214AC) molded plastic
- **Mounting position:** Any
- **Lead:** Lead formed for surface mount
- **Polarity:** Color band denotes cathode end

### Absolute Maximum Ratings and Characteristics

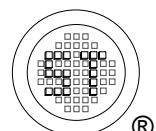
Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbols	RS1AD	RS1BD	RS1DD	RS1GD	RS1JD	RS1KD	RS1MD	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 Current at $T_L = 90^\circ\text{C}$	$I_{F(AV)}$	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 1 A	$V_F$	1.3							V
Maximum DC Reverse Current at $T_J = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_J = 100^\circ\text{C}$	$I_R$	5 50							$\mu\text{A}$
Maximum Reverse Recovery Time <sup>1)</sup>	$t_{rr}$	150				250	500		ns
Typical Junction Capacitance <sup>2)</sup>	$C_J$	15							pF
Typical Thermal Resistance <sup>3)</sup>	$R_{\theta JA}$	50							$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_J, T_{stg}$	- 65 to + 150							$^\circ\text{C}$

<sup>1)</sup> Reverse recovery test conditions  $I_F = 0.5 \text{ A}$ ,  $I_R = 1 \text{ A}$ ,  $I_{rr} = 0.25 \text{ A}$ .

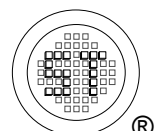
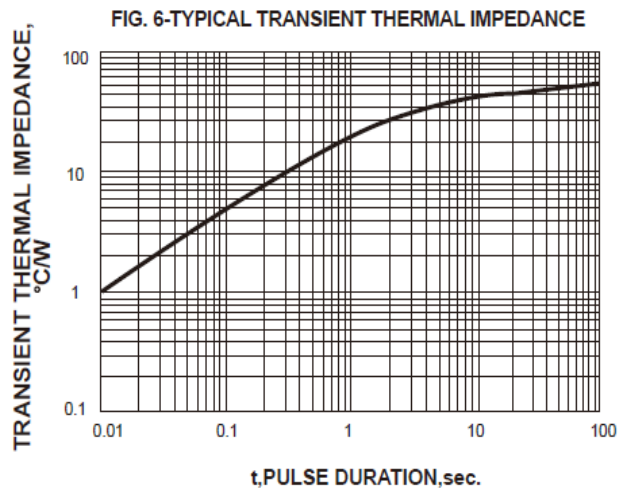
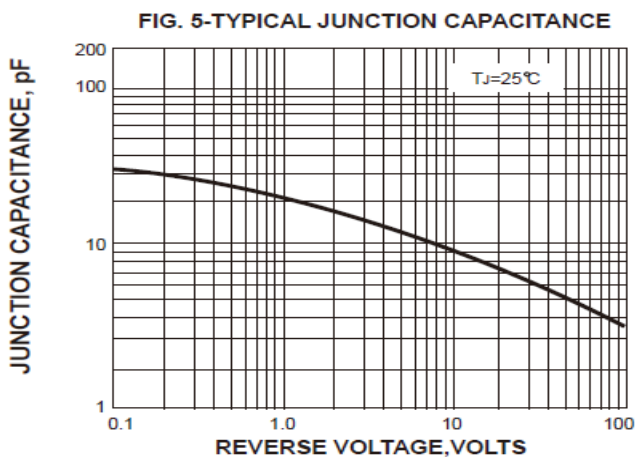
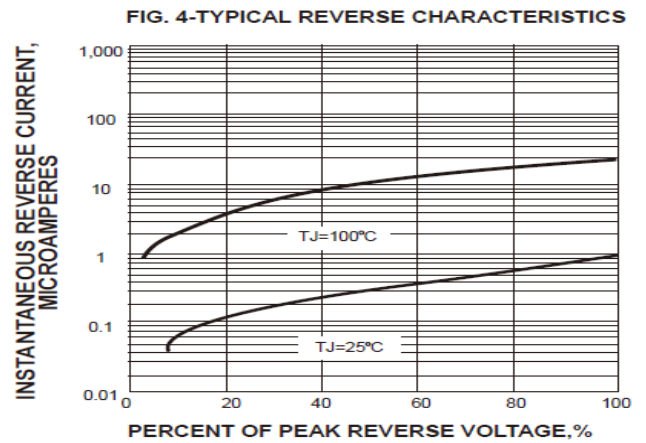
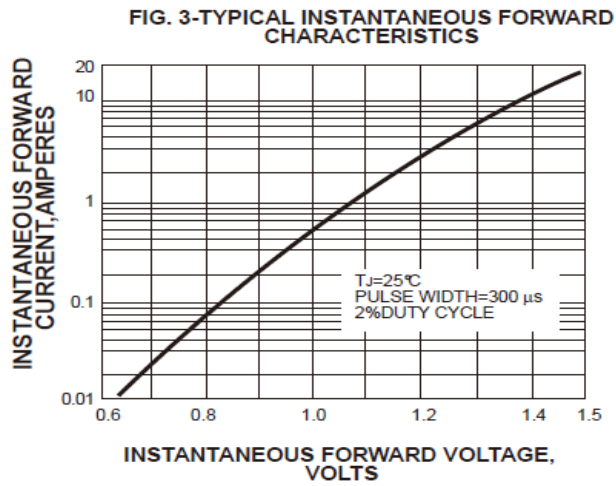
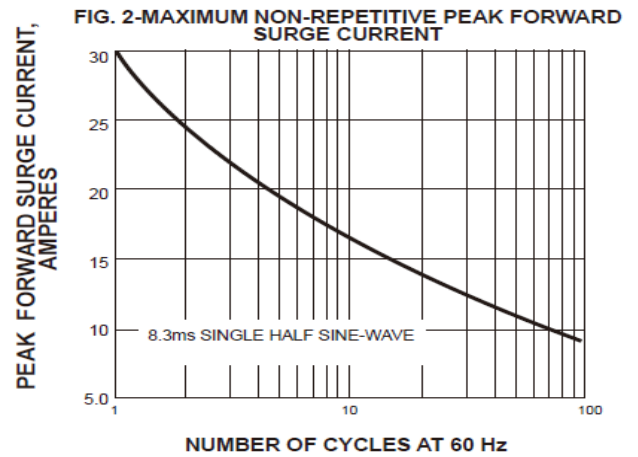
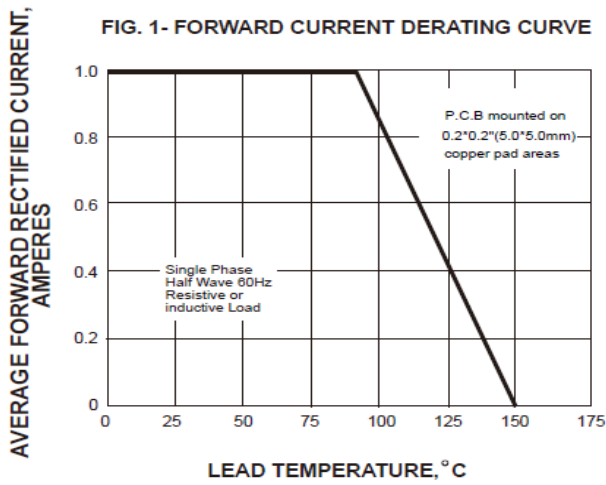
<sup>2)</sup> Measured at 1 MHz and applied reverse voltage of 4 V.

<sup>3)</sup> P.C.B. mounted with 0.2 X 0.2" (5 X 5 mm) copper pad areas.



# RS1AD THRU RS1MD

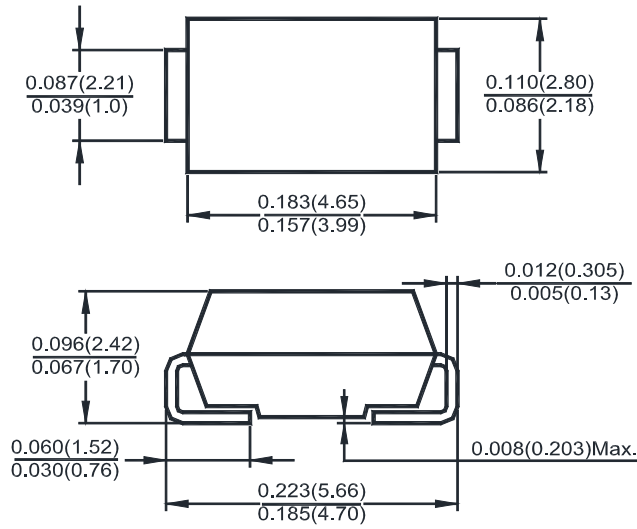
## Electrical Characteristic Curves



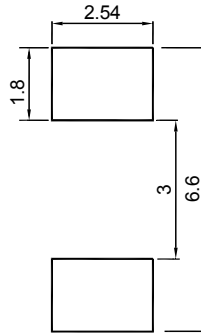
# RS1AD THRU RS1MD

Package Outline Dimensions in inches (millimeters)

SMA(DO-214AC)



## Recommended Soldering Footprint



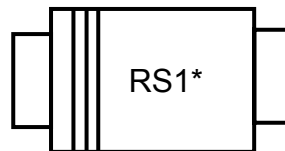
## Marking information

" RS1\* " = Part No.

Type	Marking	Type	Marking	Type	Marking	Type	Marking
RS1AD	RS1A	RS1BD	RS1B	RS1DD	RS1D	RS1GD	RS1G
RS1JD	RS1J	RS1KD	RS1K	RS1MD	RS1M		

" III " = Cathode line

Font type: Arial



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