

# RS1AD THRU RS1MD

## Surface Mount Fast Recovery Rectifiers

Reverse Voltage - 50 to 1000 V

Forward Current - 1 A

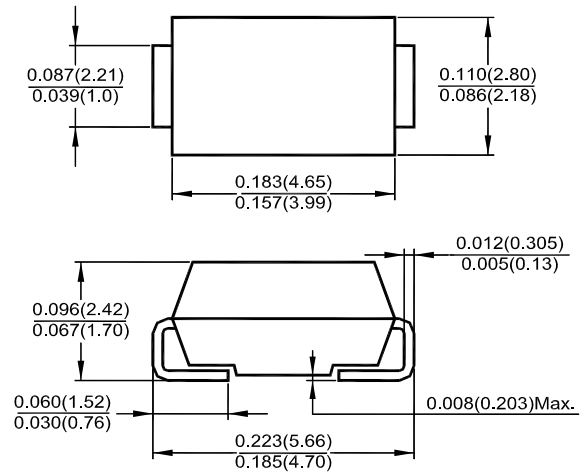
### Features

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

### Mechanical Data

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

SMA (DO-214AC)



Dimensions in inches and (millimeters)

### Absolute Maximum Ratings and Characteristics

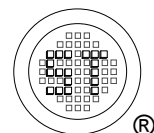
Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbols	RS1AD	RS1BD	RS1DD	RS1GD	RS1JD	RS1KD	RS1MD	Units
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Current at T <sub>L</sub> = 90 °C	I <sub>F(AV)</sub>	1							A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I <sub>FSM</sub>	30							A
Maximum Forward Voltage at 1 A	V <sub>F</sub>	1.3							V
Maximum DC Reverse Current at T <sub>A</sub> = 25 °C	I <sub>R</sub>	5							μA
at Rated DC Blocking Voltage at T <sub>A</sub> = 100 °C		50							
Maximum Reverse Recovery Time <sup>1)</sup>	t <sub>rr</sub>	150				250	500		ns
Typical Junction Capacitance <sup>2)</sup>	C <sub>J</sub>	15							pF
Typical Thermal Resistance <sup>3)</sup>	R <sub>θJA</sub>	50							°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>stg</sub>	- 65 to + 150							°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.



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