

# RS1AD THRU RS1MD

## SURFACE MOUNT FAST RECOVERY RECTIFIERS

Reverse Voltage - 50 to 1000 V

Forward Current - 1 A

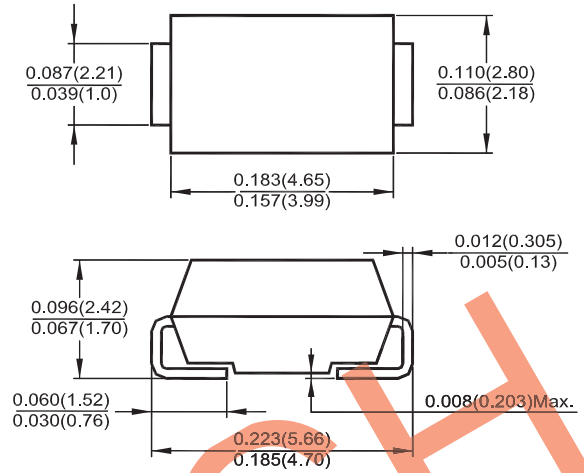
### Features

- 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

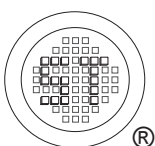
Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbols	RS1AD	RS1BD	RS1DD	RS1GD	RS1JD	RS1KD	RS1MD	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	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 $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_A = 100^\circ\text{C}$	$I_R$	5							$\mu\text{A}$
		50							
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.

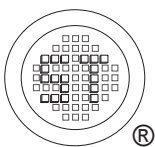
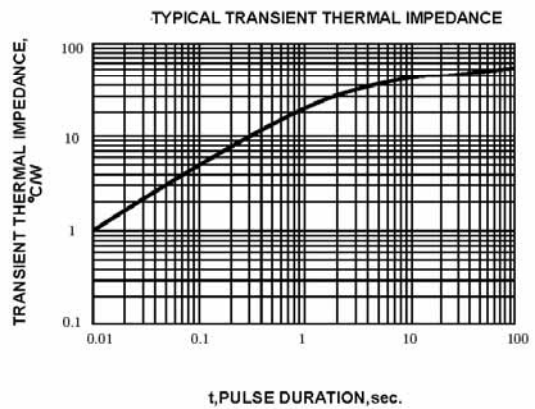
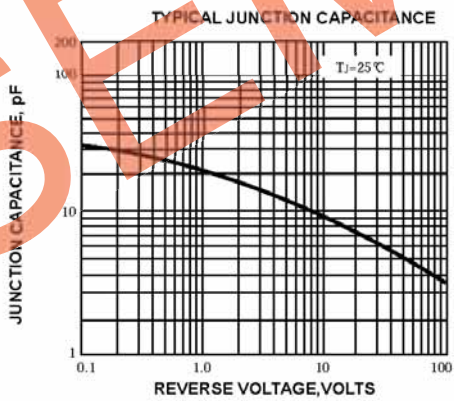
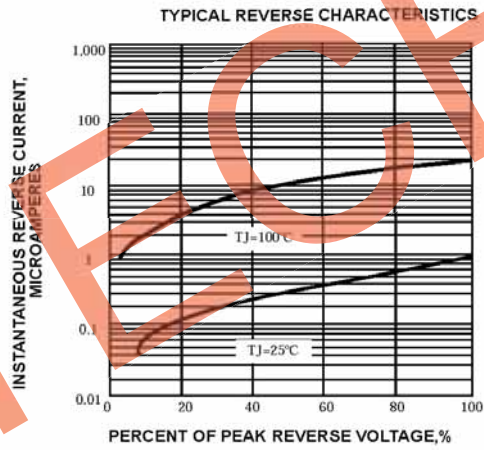
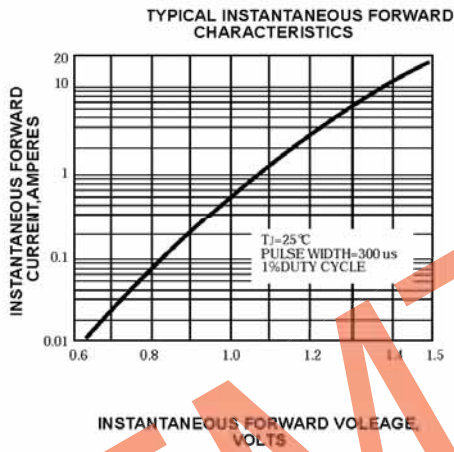
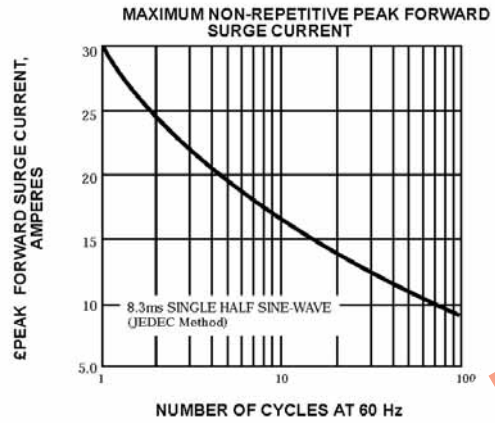
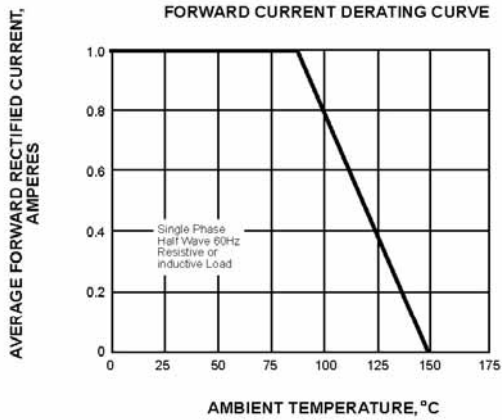


**SEMTECH ELECTRONICS LTD.**



Dated : 09/12/2014 GD Rev:03

# RS1AD THRU RS1MD



**SEMTECH ELECTRONICS LTD.**



ISO 9001:2008  
Certificate No. 18073000

ISO 14001:2004  
Certificate No. 7116

ISO 9001:2008  
Certificate No. 6073410

ISO 14001:2004  
Certificate No. 7116

IECQ QC 080000  
Certificate No. PFC-HSPM-1485-1

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