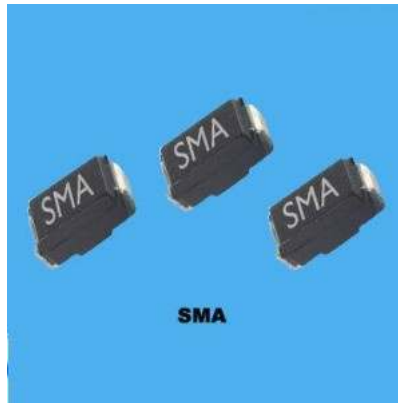




SM Technology Co., Limited



SMD Fast Recovery Diode RS1A RS1B RS1D RS1G RS1J RS1K RS1M



1A SMD Fast Recovery Rectifier Diode RS1A RS1B RS1D RS1G RS1J RS1K RS1M DO-214AC(SMA)

Part Number: RS1A RS1B RS1D RS1G RS1J RS1K RS1M

Package: SMA/DO-214AC

Surface Mount Rectifiers

REVERSE VOLTAGE: 50 — 1000 V

CURRENT: 1.0 A

Fast Recovery Rectifier Diode: RS1A-RS1M

Features

1. Plastic package has underwriters laboratory flammability classification 94V-0
2. For surface mounted applications
3. Low profile package
4. Built-in strain relief, ideal for automated placement
5. High temperature soldering: 250 oC/10 seconds at terminals

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	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 Rectified Current @ $T_c=90^\circ\text{C}$	$I_{(AV)}$	1.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage @ 1.0A	V_F	1.3							V
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$	I_R	5				50			uA uA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	150			250	500		nS	
Typical Junction Capacitance (Note 2)	C_j	10							pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$ $R_{\theta JL}$	105				32			$^\circ\text{C} / \text{W}$
Operating Temperature Range	T_J	-55 to +150							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150							$^\circ\text{C}$

- Notes:
1. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$
 2. Measured at 1 MHz and Applied $V_R=4.0$ Volts
 3. Thermal Resistance from Junction to Ambient and from Junction to Lead Mounted on P.C.B. with $0.2'' \times 0.2''$ (5.0 x 5.0 mm) Copper Pad Areas.