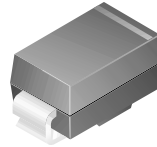


RS1A - RS1M

Features

- Glass passivated junction.
- For surface mounted applications.
- Built in strain relief, ideal for automated placement.



SMA/DO-214AC

COLOR BAND DENOTES CATHODE

Fast Rectifiers

Absolute Maximum Ratings*

$T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value							Units
		1A	1B	1D	1G	1J	1K	1M	
V_{RRM}	Maximum Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
$I_{F(AV)}$	Average Rectified Forward Current, @ $T_A = 100^\circ\text{C}$	1.0							A
I_{FSM}	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave	30							A
T_{stg}	Storage Temperature Range	-55 to +150							$^\circ\text{C}$
T_J	Operating Junction Temperature	-55 to +150							$^\circ\text{C}$

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

Thermal Characteristics

Symbol	Parameter	Value	Units
P_D	Power Dissipation	1.19	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient*	105	$^\circ\text{C}/\text{W}$
$R_{\theta JL}$	Thermal Resistance, Junction to Lead*	32	$^\circ\text{C}/\text{W}$

*Device mounted on FR-4 PCB 0.013 mm.

Electrical Characteristics

$T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Device							Units
		1A	1B	1D	1G	1J	1K	1M	
V _F	Forward Voltage @ 1.0 A	1.3							V
t _{rr}	Reverse Recovery Time I _F = 0.5 A, I _R = 1.0 A, I _{rr} = 0.25 A	150				250	500		ns
I _R	Reverse Current @ rated V _R T _A = 25°C T _A = 125°C	5.0 50							μA μA
C _T	Total Capacitance V _R = 4.0 V, f = 1.0 MHz	10							pF

Typical Characteristics

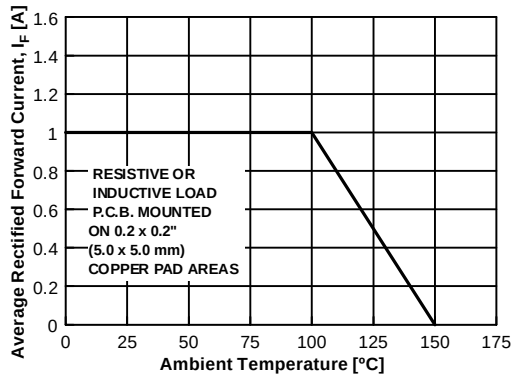


Figure 1. Forward Current Derating Curve

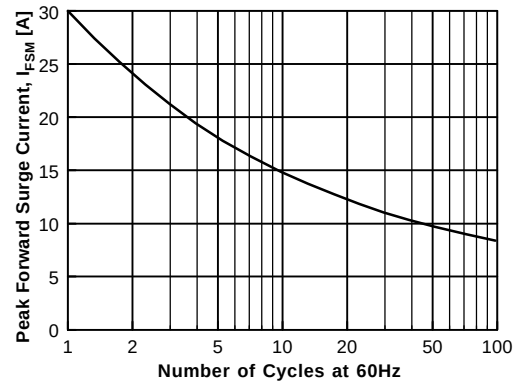


Figure 2. Non-Repetitive Surge Current

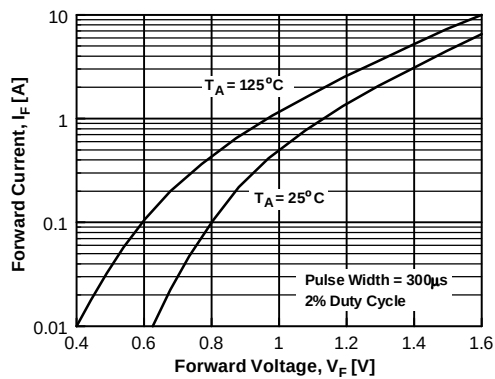


Figure 3. Forward Voltage Characteristics

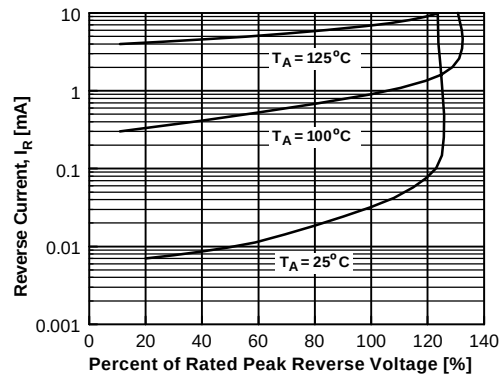


Figure 4. Reverse Current vs Reverse Voltage

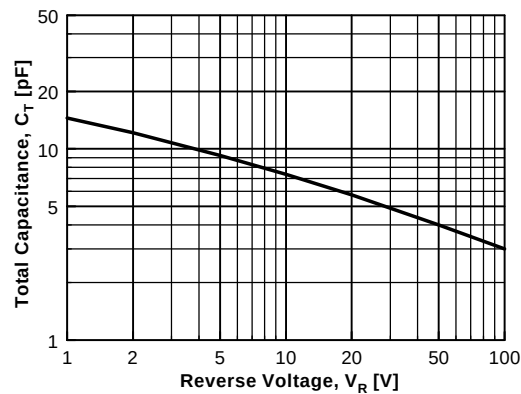


Figure 5. Total Capacitance

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