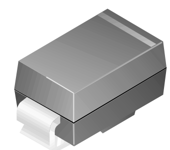
S1A - S1M

Features

- Low profile package.
- Glass passivated junction.



SMA/DO-214AC
COLOR BAND DENOTES CATHODE

General Purpose Rectifiers

Absolute Maximum Ratings* T_A = 25°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°C	1.0							A
I_{FSM}	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave	40							A
T_{stg}	Storage Temperature Range	-55 to +150							°C
T_J	Operating Junction Temperature	-55 to +150							°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	1.4	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient*	85	°C/W

*Device mounted on FR-4 PCB 0.013 mm.

Electrical Characteristics T_A = 25°C unless otherwise noted

Symbol	Parameter	Device							Units
		1A	1B	1D	1G	1J	1K	1M	
V_F	Forward Voltage @ 1.0 A	1.1							V
t_{rr}	Reverse Recovery Time I_F = 0.5 A, I_R = 1.0 A, I_{rr} = 0.25 A	1.8							µs
I_R	Reverse Current @ rated V_R T_A = 25°C T_A = 125°C	1.0 50							µA µA
C_T	Total Capacitance V_R = 4.0 V, f = 1.0 MHz	12							pF

Typical Characteristics

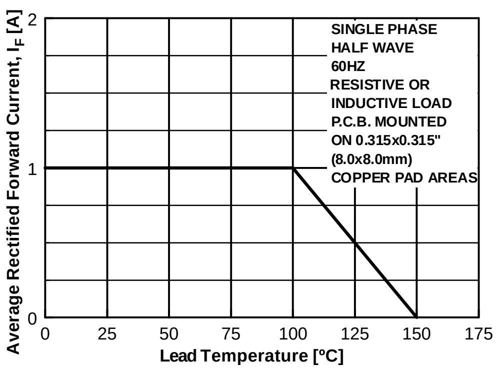


Figure 1. Forward Current Derating Curve

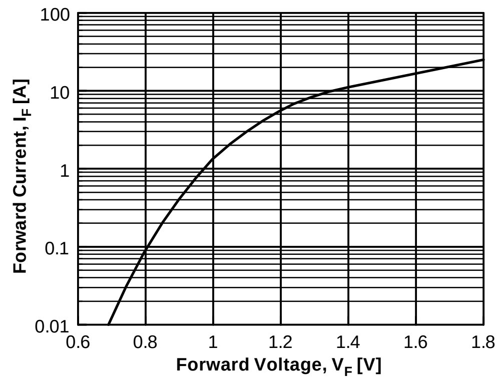


Figure 2. Forward Voltage Characteristics

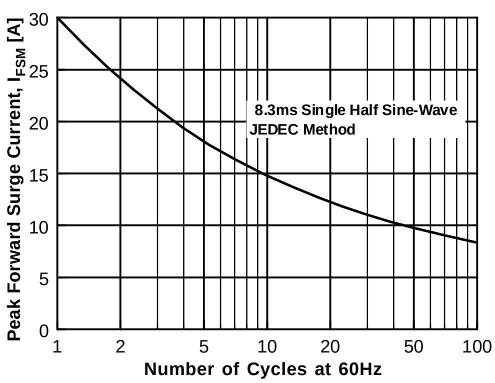


Figure 3. Non-Repetitive Surge Current

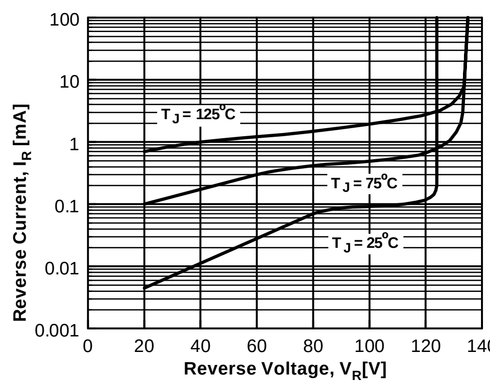


Figure 4. Reverse Current vs Reverse Voltage

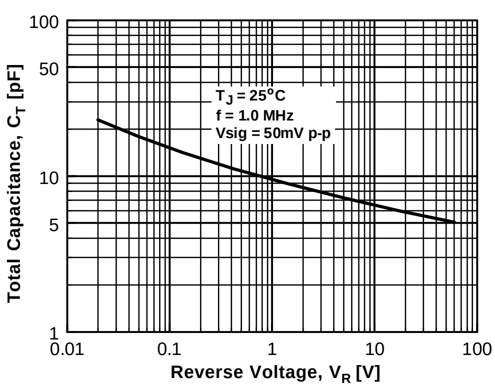


Figure 5. Total Capacitance

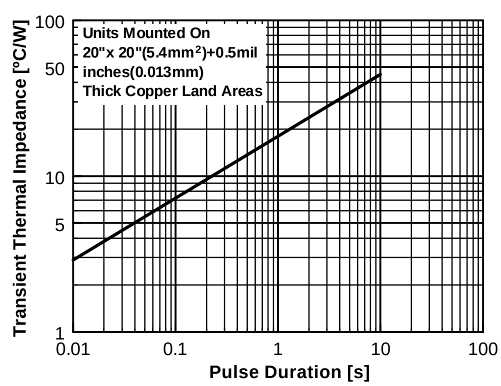


Figure 6. Thermal Impedance Characteristics

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