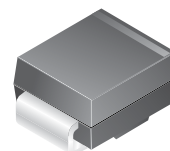


S2A - S2M

15 A Schottky Barrier Rectifiers

Features

- Easy Pick and Place
- Low-Forward Voltage Drop
- High-Current Capability
- High-Surge Current Capability


SMB/DO-214AA

COLOR BAND DENOTES CATHODE

Absolute Maximum Ratings

Stresses exceeding the absolute maximum ratings may damage the device. The device may not function or be operable above the recommended operating conditions and stressing the parts to these levels is not recommended. In addition, extended exposure to stresses above the recommended operating conditions may affect device reliability. The absolute maximum ratings are stress ratings only. Values are at $T_A = 25^\circ\text{C}$ unless otherwise noted.

Symbol	Parameter	Value							Units
		2A	2B	2D	2G	2J	2K	2M	
V_{RRM}	Maximum Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
$I_{F(AV)}$	Average Rectified Forward Current at $T_A = 100^\circ\text{C}$	2.0							A
I_{FSM}	Non-Repetitive Peak Forward Surge Current: 8.3 ms Single Half-Sine-Wave	50							A
T_{STG}	Storage Temperature Range	-65 to +150							$^\circ\text{C}$
T_J	Operating Junction Temperature	-65 to +150							$^\circ\text{C}$

Thermal Characteristics

Symbol	Parameter	Value	Units
P_D	Power Dissipation	2.35	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient ⁽¹⁾	53	$^\circ\text{C}/\text{W}$

Note:

1. Device mounted on FR-4 PCB 0.013 mm.

Electrical Characteristics

Values are at $T_A = 25^\circ\text{C}$ unless otherwise noted.

Symbol	Parameter	Teat Conditions	Value							Units
			2A	2B	2D	2G	2J	2K	2M	
V _F	Forward Voltage	2.0 A	1.15							V
t _{rr}	ReverseRecoveryTime	I _F = 0.5 A, I _R = 1.0 A, I _{rr} = 0.25 A	2.0							μs
I _R	Reverse Current at Rated V _R	T _A = 25°C	1.0							μA
		T _A = 125°C	125							
C _T	Total Capacitance	V _R = 4.0 V, f = 1.0 MHz	30							pF

Typical Performance Characteristics

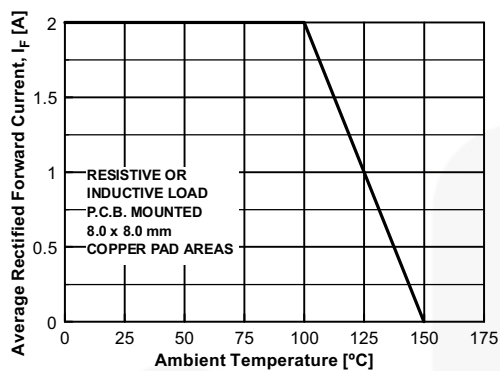


Figure 1. Forward Current Derating Curve

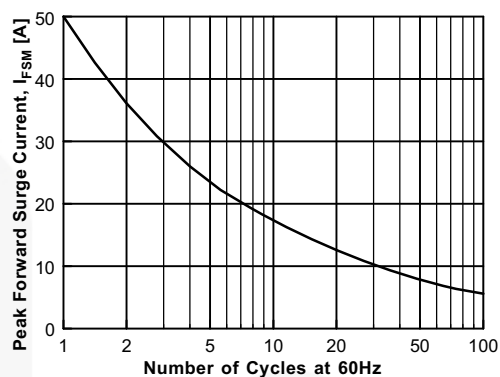


Figure 2. Non-Repetitive Surge Current

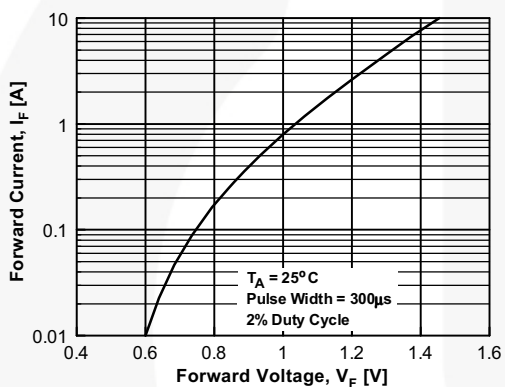


Figure 3. Forward Voltage Characteristics

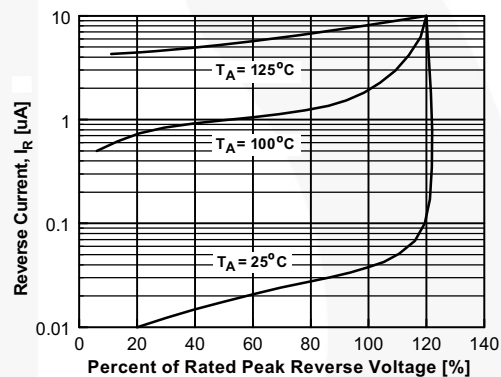


Figure 4. Reverse Current vs. Reverse Voltage

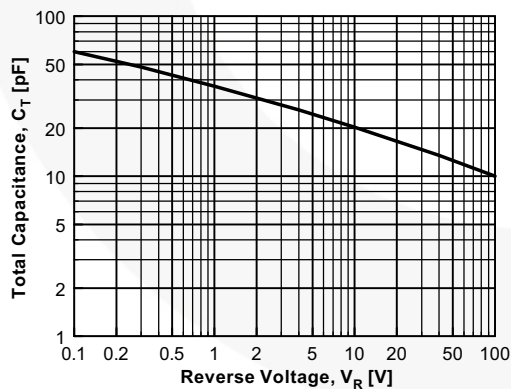


Figure 5. Total Capacitance

Physical Dimensions

DO-214AA

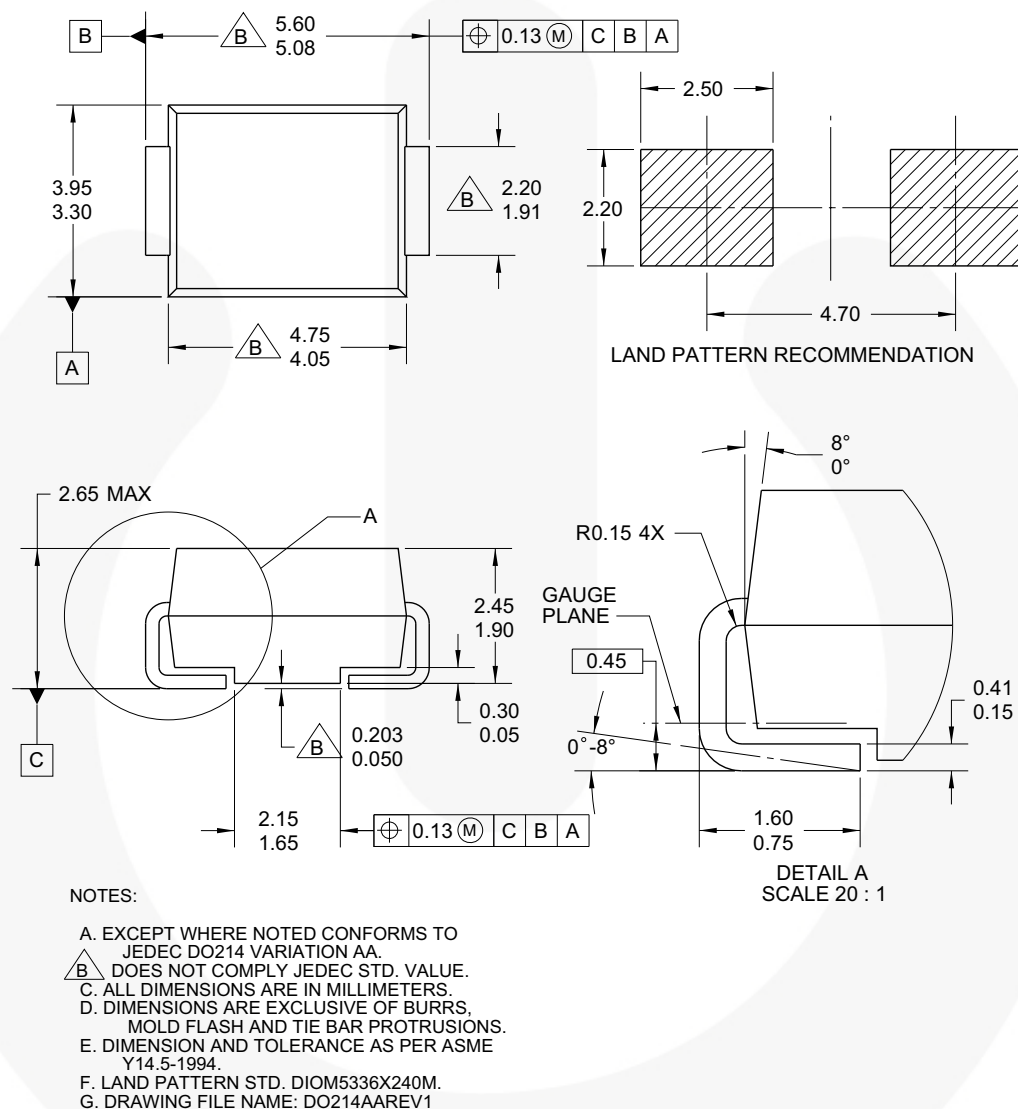


Figure 6. 2-LEAD, SMB, JEDEC DO-214, VARIATION AA (ACTIVE)

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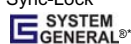



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