



Surface Mount Schottky Barrier Diode

Features

- Guardring for overvoltage protection
- Low power loss
- Extremely fast switching
- High forward surge capability
- High frequency operation
- Solder dip 260 °C max. 10 s, per JESD 22-B106

Mechanical Data

- Package: SMB/DO-214AA
- Terminals: Tin plated leads, solderable per J-STD-002
- Polarity: Cathode line denotes the cathode end

Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Unit	SS102B	SS103B	SS104B	SS105B	SS106B	SS108B	SS1010B	SS1015B	SS1020B
Repetitive Peak Reverse Voltage	V_{RRM}	V	20	30	40	50	60	80	100	150	200
Average Rectified Output Current @60Hz sine wave, Resistance load, TL (FIG.1)	I_O	A	10.0								
Surge(Non-repetitive)Forward Current @60Hz Half-sine wave,1 cycle, $T_a=25^{\circ}\text{C}$	I_{FSM}	A	180								
Storage Temperature	T_{stg}	$^{\circ}\text{C}$	-55 ~+150								
Junction Temperature	T_j	$^{\circ}\text{C}$	-55 ~+150					-55 ~+175			

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Unit	Test Conditions	SS102B	SS103B	SS104B	SS105B	SS106B	SS108B	SS1010B	SS1015B	SS1020B
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =10.0A	0.55			0.70		0.85		0.95	
Maximum DC reverse current at rated DC blocking voltage per diode	I _R	mA	Ta=25℃	0.2					0.1			
			Ta=100℃	20					5.0			



Thermal Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter		Symbol	Unit	SS102B	SS103B	SS104B	SS105B	SS106B	SS108B	SS1010B	SS1015B	SS1020B
Thermal Resistance	Between junction and ambient	$R_{\theta J-A}$	$^{\circ}\text{C}/\text{W}$	65 ⁽¹⁾								
	Between junction and lead	$R_{\theta J-L}$		8 ⁽¹⁾								

Note (1)

Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.6" x 0.6" (16 mm x 16 mm) copper pad areas

Characteristics (Typical)

FIG.1: Io-TL Curve

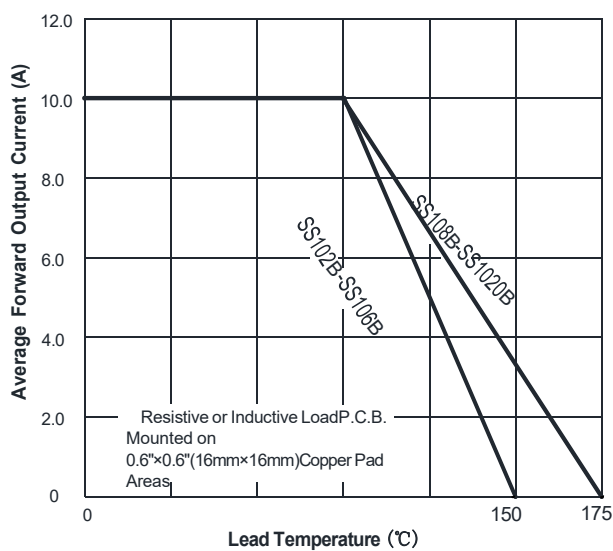


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

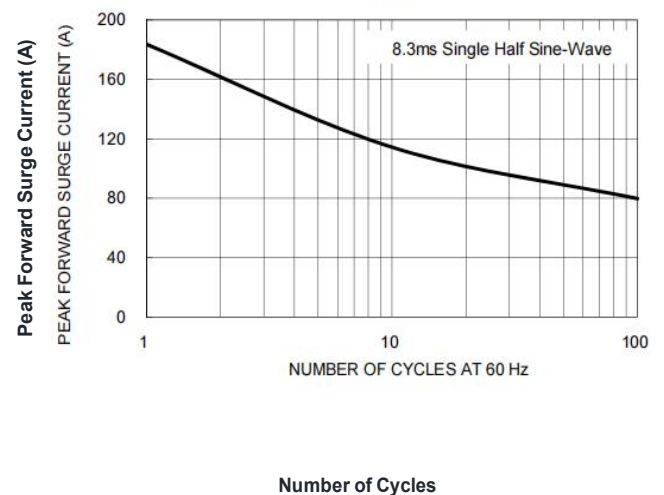


FIG.3: Forward Voltage

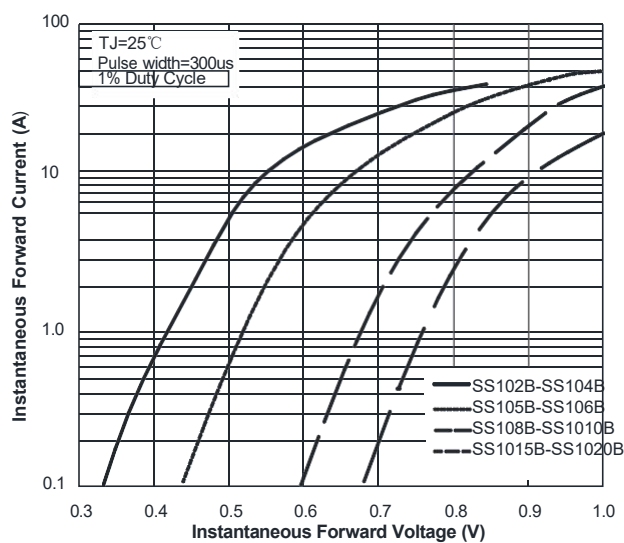
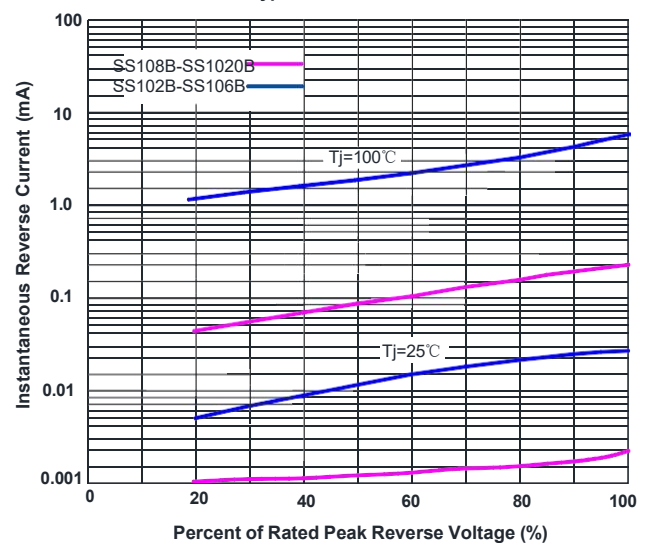
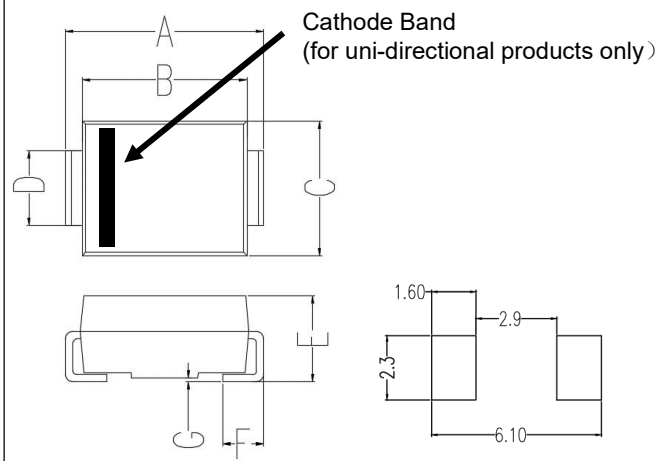


FIG.4: Typical Reverse Characteristics



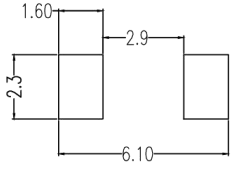
Dimensions (SMB/DO-214AA)

Dim	Inches		Millimeters	
	Min	Max	Min	Max
A	0.205	0.217	5.21	5.51
B	0.167	0.187	4.25	4.75
C	0.137	0.147	3.48	3.73
D	0.076	0.083	1.93	2.10
E	0.078	0.103	1.99	2.61
F	0.035	0.055	0.90	1.40
G	0.000	0.008	0.00	0.20



Cathode Band
(for uni-directional products only)

Dimensions in inches and millimeters



Soldering footprint