

Surface Mount Schottky Barrier Diode

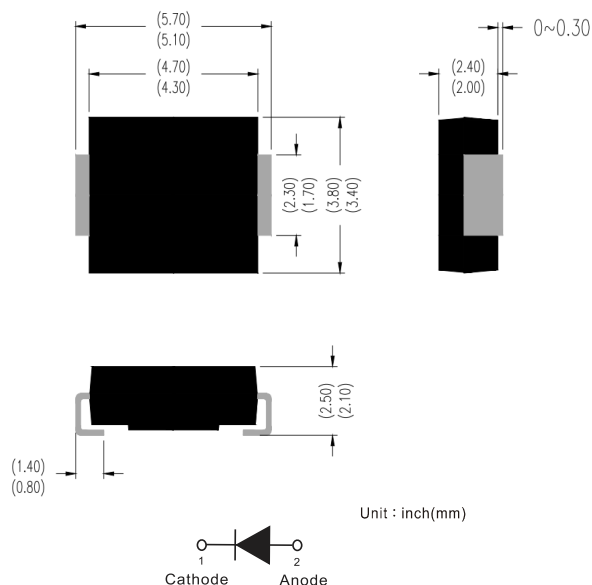
Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- High forward surge capability
- Compliant with RoHS standards, halogen-free

Mechanical Data

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

SMB/DO-214AA



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

Parameter	Symbol	Unit	SS52B	SS53B	SS54B	SS55B	SS56B	SS58B	SS510B	SS515B	SS520B
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	5.0								
Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, $T_A=25^\circ\text{C}$	I_{FSM}	A	100								
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	SS52B	SS53B	SS54B	SS55B	SS56B	SS58B	SS510B	SS515B	SS520B
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =5.0A	0.55			0.70		0.85		0.95	
Maximum DC reverse current at rated DC blocking voltage per diode @ V _{RM} =V _{RRM}	I _{RRM}	mA	Ta=25°C	0.5					0.1			
			Ta=100°C	10					5			

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

Parameter	Symbol	Unit	SS52B	SS53B	SS54B	SS55B	SS56B	SS58B	SS510B	SS515B	SS520B
Thermal resistance	$R_{\theta J-A}$	$^\circ\text{C/W}$	58 ⁽¹⁾								
	$R_{\theta J-L}$		20 ⁽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)

FIG1: Io-TL Curve

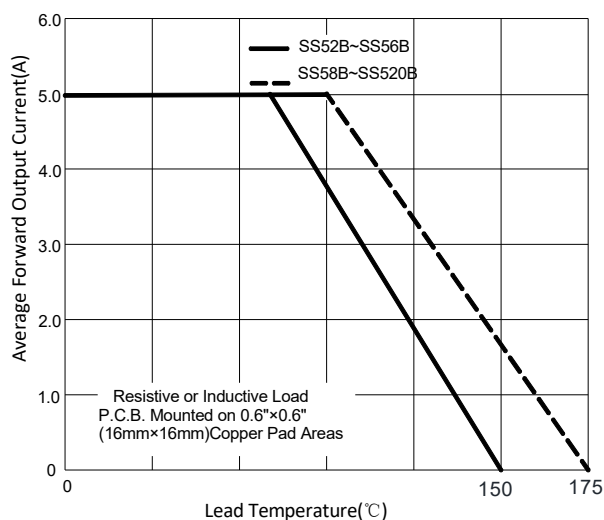


FIG2: Surge Forward Current Capability

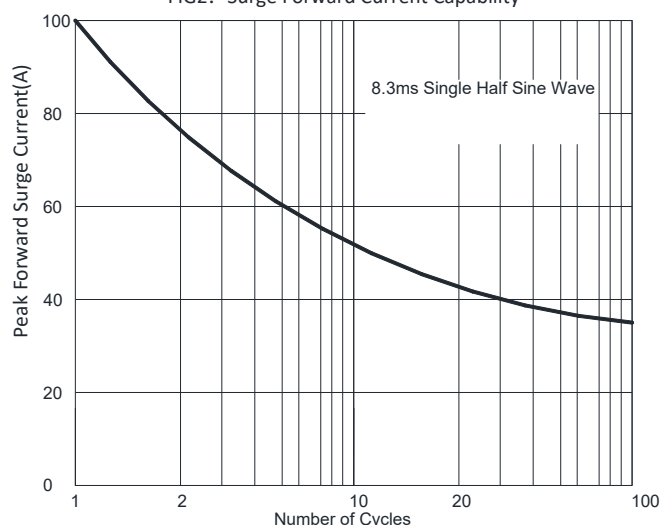


FIG3: Forward Voltage

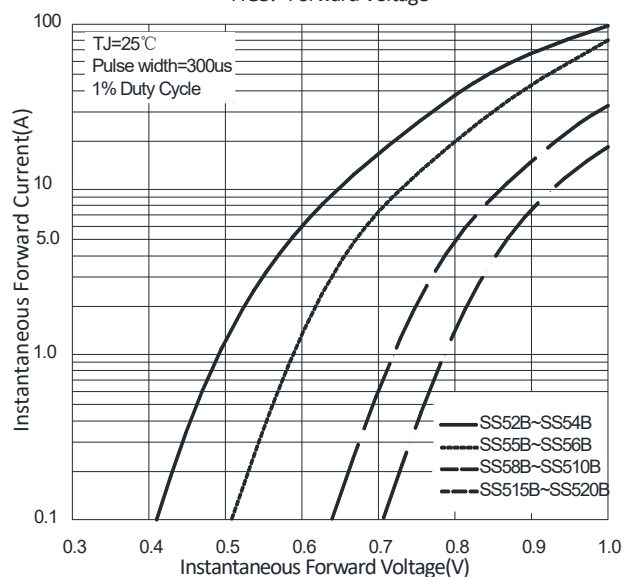


FIG4: Typical Reverse Characteristics

