

Surface Mount Schottky Rectifier

Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

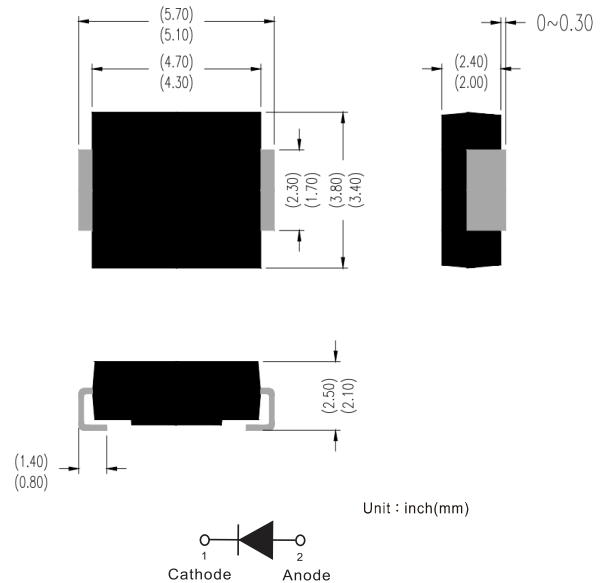
Typical Applications

For use in low voltage high frequency inverters, freewheeling, DC/DC converters, and polarity protection applications.

Mechanical Data

- **Package:** DO-214AA (SMB)
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

DO-214AA (SMB)



■ Maximum Ratings (T_a=25°C Unless otherwise specified)

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°C	I _{FSM}	A	100								
Storage temperature	T _{stg}	°C	-55 ~+150								
Junction temperature	T _j	°C	-55 ~+150				-55 ~+175				

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

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	T _a =25°C	0.5				0.1				
			T _a =100°C	10				5				

■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS52B	SS53B	SS54B	SS55B	SS56B	SS58B	SS510B	SS515B	SS520B
Thermal resistance	R _{θJ-A}	°C/W	58 ¹⁾								
	R _{θJ-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

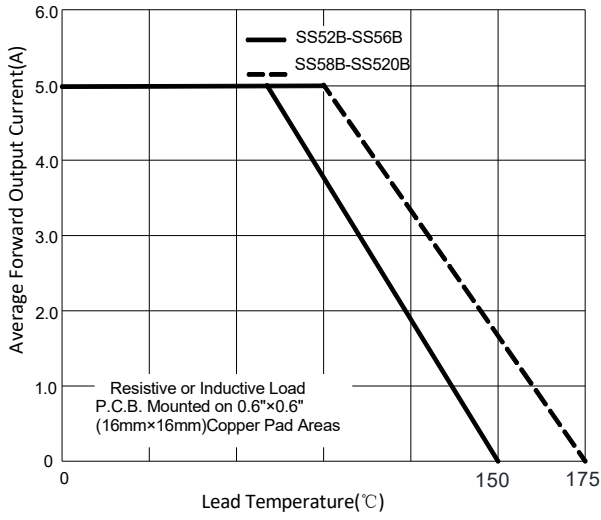


FIG2: Surge Forward Current Capability

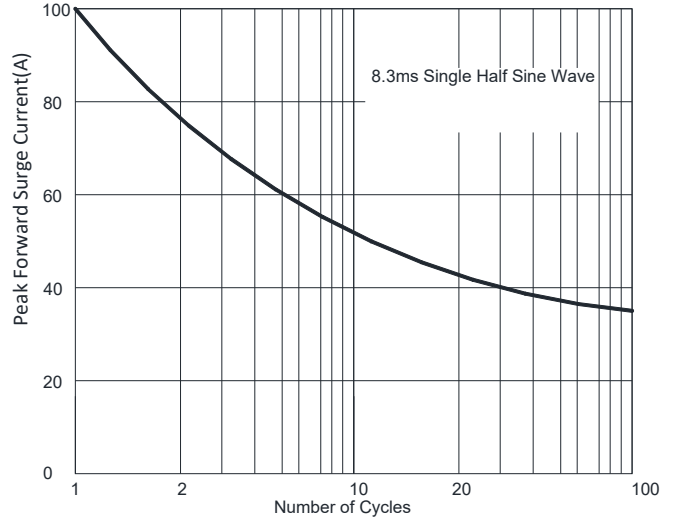


FIG3: Forward Voltage

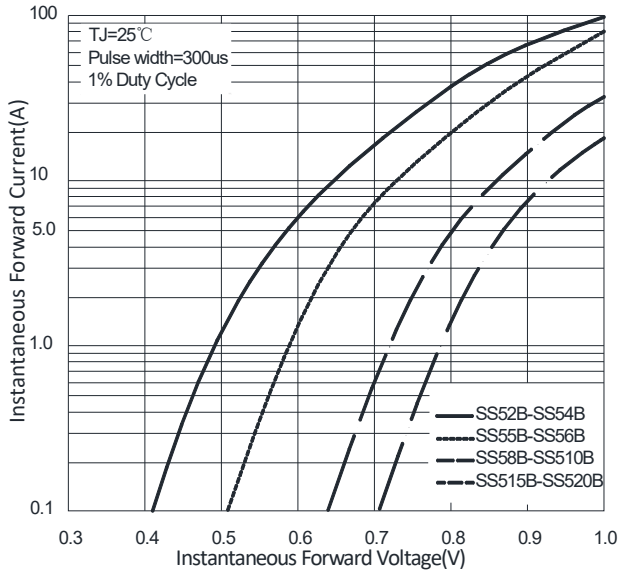


FIG4: Typical Reverse Characteristics

