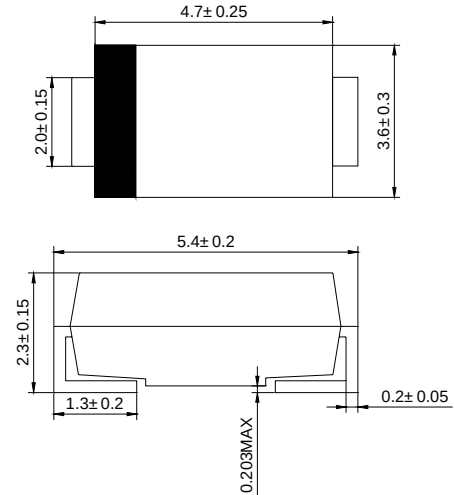




Features

- ◇ Plastic package has Underwriters Laborator Flammability Classification 94V-0
- ◇ For surface mounted applications
- ◇ Low profile package
- ◇ Built-in strain relief
- ◇ Metal silicon junction, majority carrier conduction
- ◇ High surge capability
- ◇ High current capability, low forward voltage drop
- ◇ Low power loss, high efficiency
- ◇ For use in low voltage high frequency inverters, free wheeling and polarity protection applications
- ◇ Guardring for overvoltage protection
- ◇ High temperature soldering guaranteed: 250°C/10 seconds at terminals

SMB



Dimensions in millimeters

Mechanical Data

- ◇ Case: JEDEC SMB, molded plastic over passivated chip
- ◇ Polarity: Color band denotes cathode end
- ◇ Weight: 0.093 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

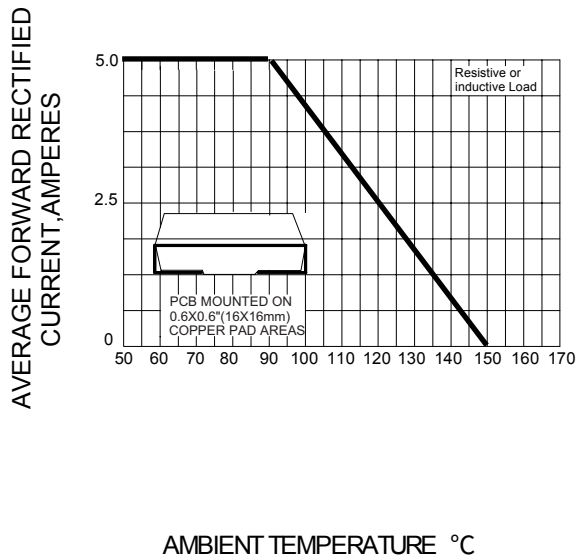
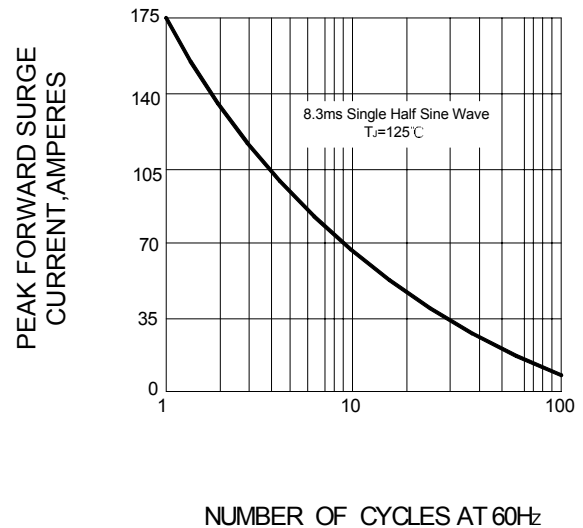
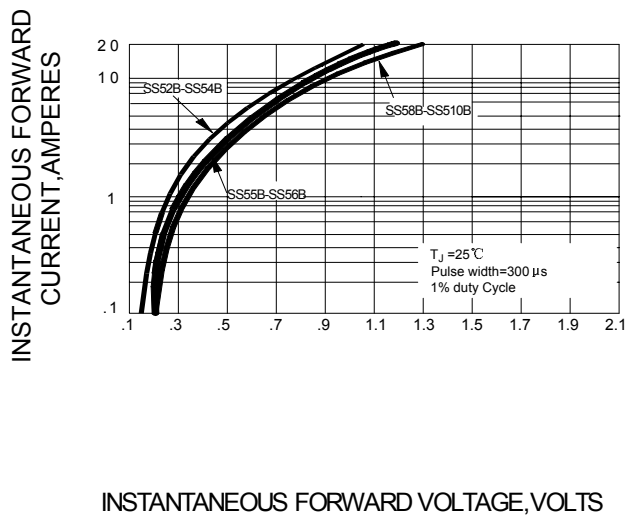
Ratings at 25°C ambient temperature unless otherwise specified

		SS52B	SS53B	SS54B	SS55B	SS56B	SS58B	SS59B	SS510B	UNITS
Maximum recurrent peak reverse voltage	V _{RRM}	20	30	40	50	60	80	90	100	V
Maximum RMS voltage	V _{RWS}	14	21	28	35	42	56	63	70	V
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	80	90	100	V
Maximum average forw ord rectified current at T _L (SEE FIG.1) (NOTE 2)	I _(AV)	5.0								A
Peak forw ard surge current 8.3ms single half-sine-w ave superimposed on rated load(JEDEC Method)	I _{FSM}	175								A
Maximum instantaneous forw ard voltage at 5.0A(NOTE 1)	V _F	0.55			0.70		0.85			V
Maximum DC reverse current @T _A =25°C at rated DC blockjing voltage(NOTE1) @T _A =100°C	I _R	0.5								mA
		20					10			
Typical thermal resitance (NOTE2)	R _{θ JA}	55								°C/W
	R _{θ JL}	17								
Operating junction temperature range	T _J	-55--- +150								°C
Storage temperature range	T _{STG}	-55--- +150								°C

NOTE: 1. Pulse test: 300 μs pulse width, 1% duty cycle

2. P.C.B. mounted with 0.55"X0.55" (14.0X14.0mm²) copper pad areas

Ratings AND Characteristic Curves

FIG.1 – FORWARD DERATING CURVE

FIG.2– PEAK FORWARD SURGE CURRENT

FIG.3 – TYPICAL FORWARD CHARACTERISTICS

FIG.4 – TYPICAL REVERSE CHARACTERISTICS
