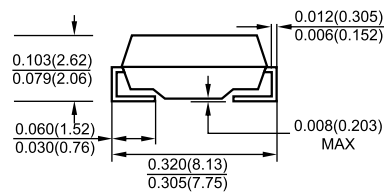
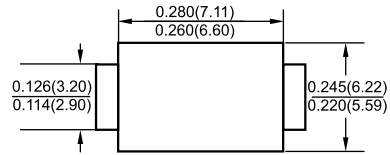




Features

- ✧ 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

SMC/DO-214AB



Dimensions in inches and (millimeters)

Mechanical Data

- ✧ Case: JEDEC SMC, molded plastic over passivated chip
- ✧ Polarity: Color band denotes cathode end
- ✧ Weight: 0.007 ounces, 0.21 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

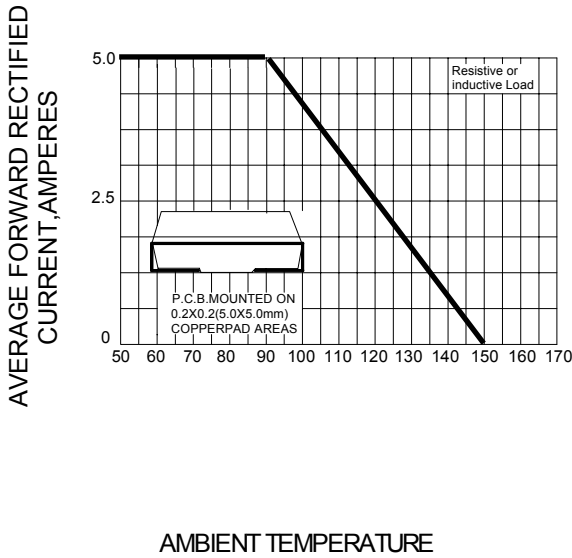
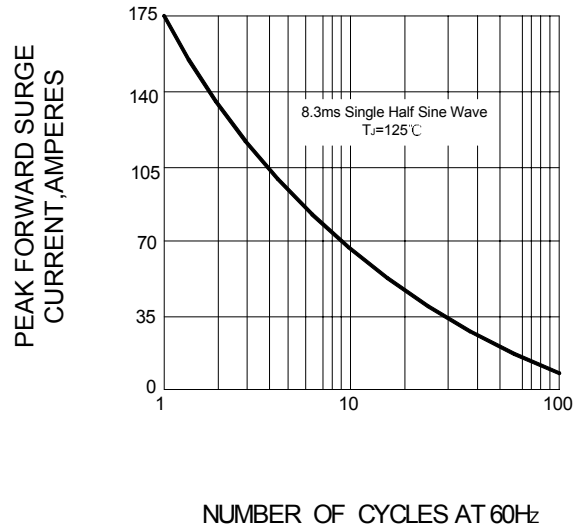
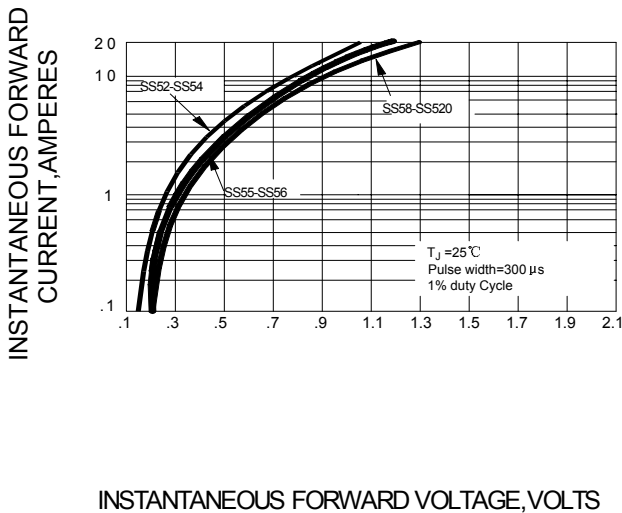
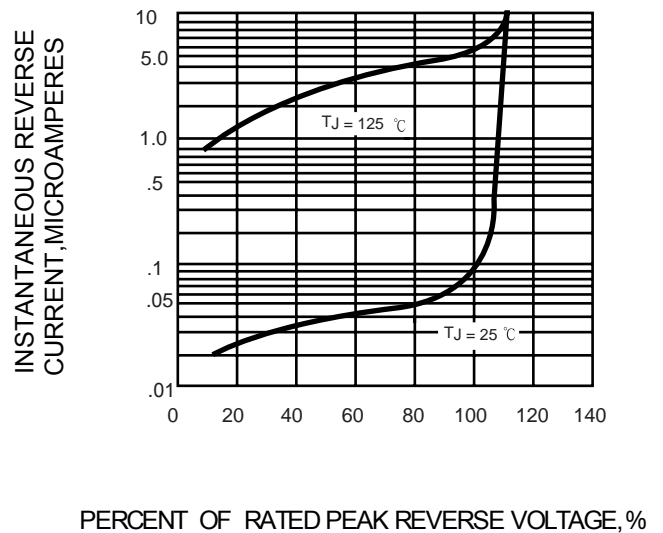
Ratings at 25°C ambient temperature unless otherwise specified

		SS52	SS53	SS54	SS55	SS56	SS58	SS59	SS510	SS520	UNITS	
Maximum recurrent peak reverse voltage	V_{RRM}	20	30	40	50	60	80	90	100	200	V	
Maximum RMS voltage	V_{RWS}	14	21	28	35	42	56	63	70	140	V	
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	90	100	200	V	
Maximum average forward rectified current at T_L (SEE FIG. 1) (NOTE 2)	$I_{(AV)}$	5.0									A	
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	175									A	
Maximum instantaneous forward voltage at 5.0A (NOTE 1)	V_F	0.55			0.70		0.85				V	
Maximum DC reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage (NOTE 1) @ $T_A=100^\circ\text{C}$	I_R	0.5					10					mA
Typical thermal resistance (NOTE 2)	R_{JA}	55									°C/W	
	R_{JL}	17										
Operating junction temperature range	T_J	-55--- +150									°C	
Storage temperature range	T_{STG}	-55--- +150									°C	

NOTE: 1. Pulse test: 300 μ s 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


PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SMC	3000/REEL	42000	36X36X36.5	18.50	15.50