

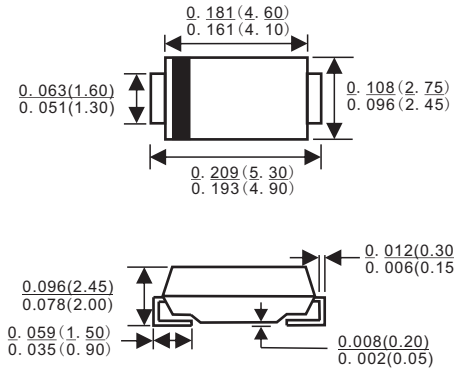


REVERSE VOLTAGE: 20 --- 100 V
CURRENT: 5.0 A

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

SMA/DO-214AC



Dimensions in inches and (millimeters)

Mechanical Data

- ✧ Case: JEDEC SMA, molded plastic over passivated chip
- ✧ Polarity: Color band denotes cathode end
- ✧ Weight: 0.064 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

Parameter	SS52A	SS53A	SS54A	SS55A	SS56A	SS58A	SS59A	SS510A	SS515A	SS520A	UNITS	
Marking code	SS52	SS53	SS54	SS55	SS56	SS58	SS59	SS510	SS515	SS520		
Maximum recurrent peak reverse voltage	V_{RRM}	20	30	40	50	60			150	200	V	
Maximum RMS voltage	V_{RWS}	14	21	28	35	42	56	63	70	86	105	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	90	100	150	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	0.45	0.55	0.70			0.85				V	
Maximum DC reverse current @ $T_A = 25^\circ C$ at rated DC blocking voltage (NOTE1) @ $T_A = 100^\circ C$	I_R	0.5									mA	
		20				10						
Typical thermal resistance (NOTE2)	R_{JA} R_{JL}	55				17					$^\circ C/W$	
Operating junction temperature range	T_J	-55 --- +150					-55 --- +175					$^\circ C$
Storage temperature range	T_{STG}	-55 --- +150					-55 --- +175					$^\circ C$

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

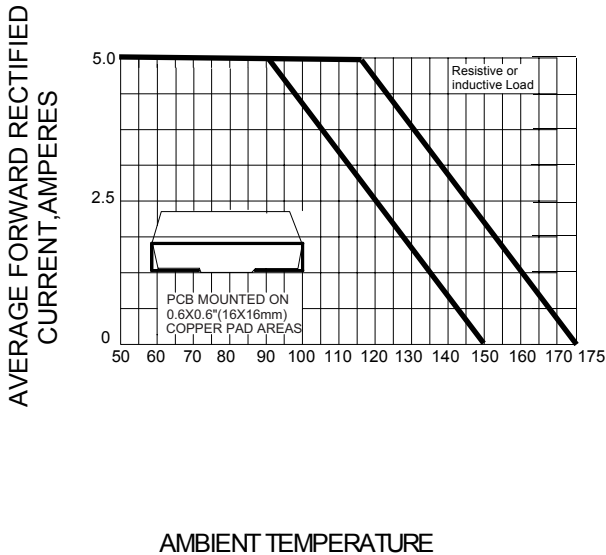


FIG.2– PEAK FORWARD SURGE CURRENT

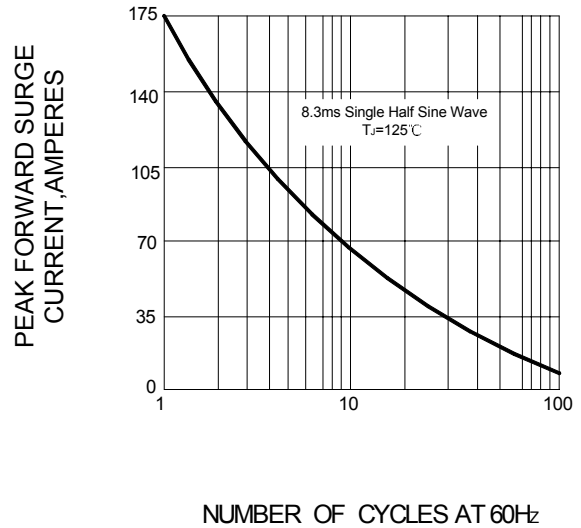


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

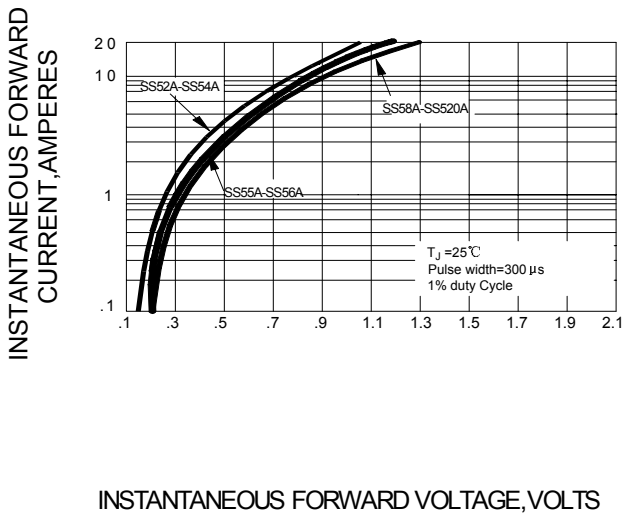
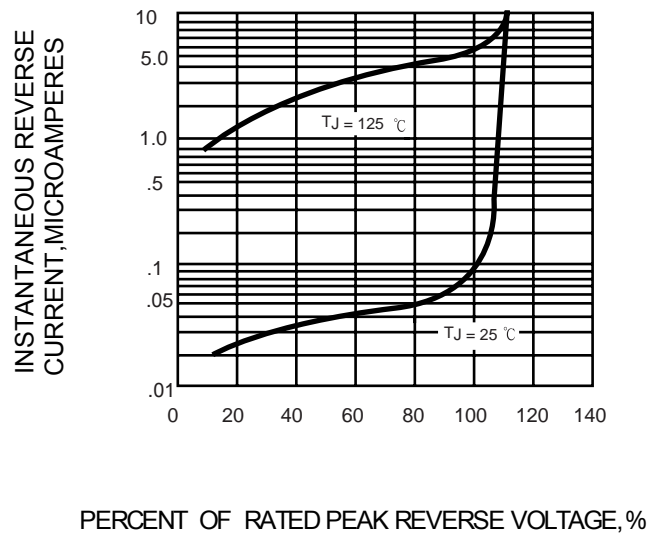


FIG.4 – TYPICAL REVERSE CHARACTERISTICS



PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SMA	5000/REEL	80000	36X30.6X31	12.00	11.00