



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

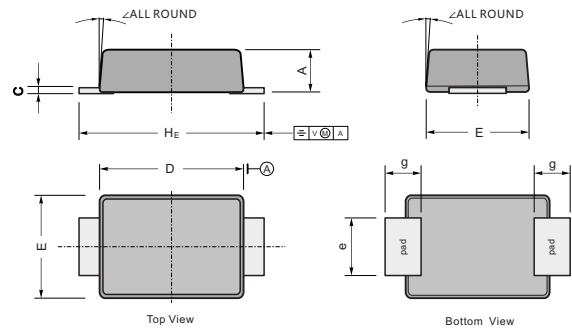
Features

- ✧ 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

Mechanical Data

- ✧ Case: JEDEC SMAF, molded plastic over passivated chip
- ✧ Polarity: Color band denotes cathode end
- ✧ Weight: 0.023 gram

SMAF



UNIT		A	C	D	E	e	g	H _E	z
mm	max	1.2	0.20	3.7	2.7	1.6	1.2	4.9	7°
	min	0.9	0.12	3.3	2.4	1.3	0.8	4.4	
mil	max	47	7.9	146	106	63	47	193	
	min	35	4.7	130	94	51	31	173	

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

Parameter	Symbol	SS5	SS5	SS5	SS5	SS5	SS5	SS5	SS5	SS5	UNITS
		2LAF	3LAF	4LAF	45LAF	5LAF	6LAF	8LAF	9LAF	10LAF	
Marking code		SS52LF	SS53LF	SS54LF	SS545LF	SS55LF	SS56LF	SS58LF	SS59LF	SS510LF	
Maximum recurrent peak reverse voltage	V _{RRM}	20	30	40	45	50	60	80	90	100	V
Maximum RMS voltage	V _{RWS}	14	21	28	32	35	42	56	63	70	V
Maximum DC blocking voltage	V _{DC}	20	30	40	45	50	60	80	90	100	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}	150									A
Maximum instantaneous forward voltage at 5.0A (NOTE 1)	V _F	0.45			0.55		0.65			V	
Maximum DC reverse current @T _A =25°C at rated DC blocking voltage (NOTE 1) @T _A =100°C	I _R	0.5				10			20		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 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

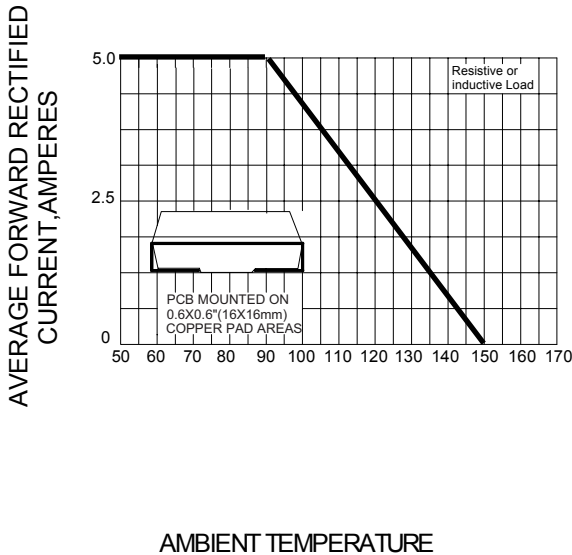


FIG.2- PEAK FORWARD SURGE CURRENT

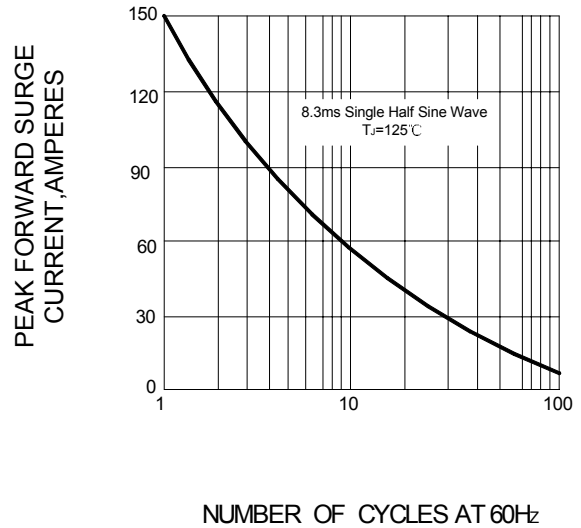


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

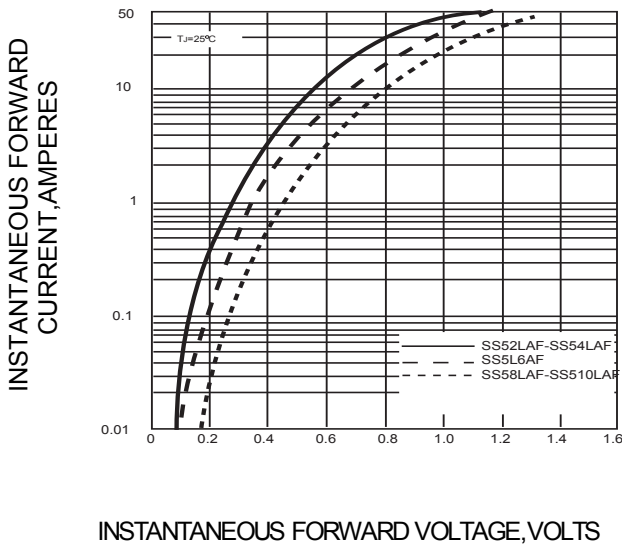
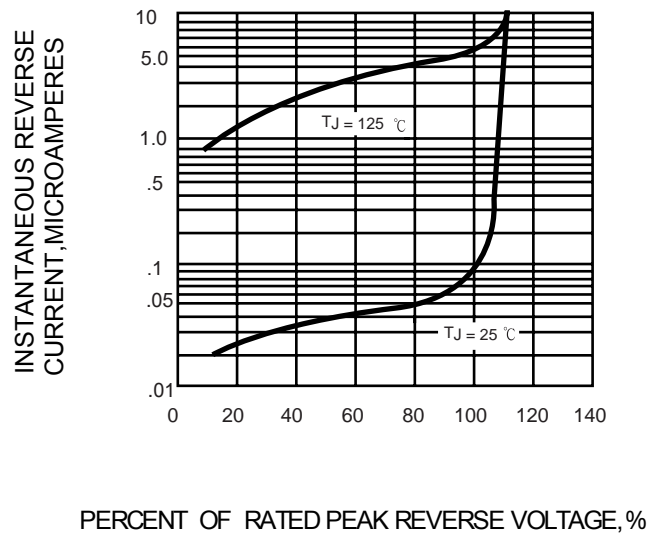


FIG.4 – TYPICAL REVERSE CHARACTERISTICS



PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SMAF	3000/REEL	120000	30.5X30.5X42.5	12.00	11.00
PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SMAF	5000/REEL	100000	30.5X30.5X42.5	10.00	9.00