

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

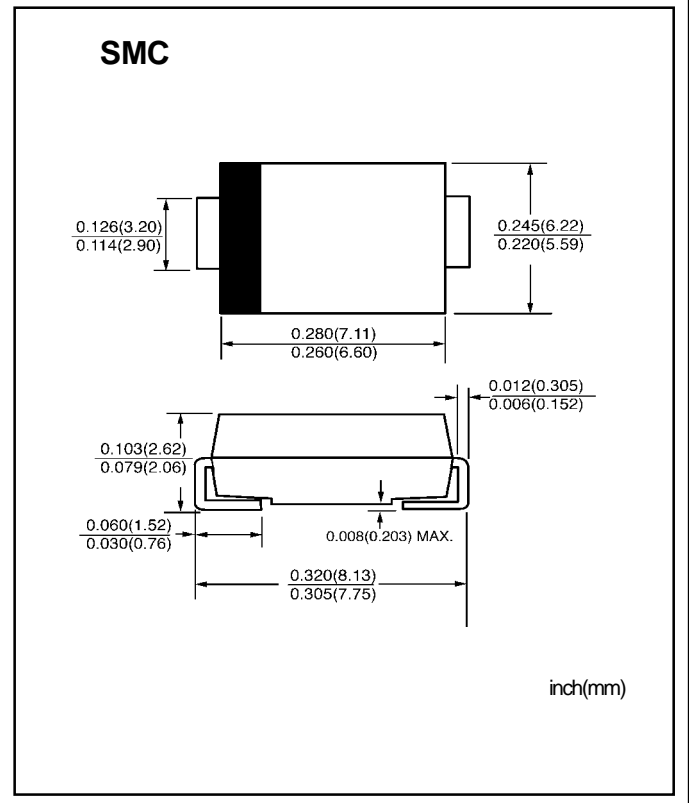
REVERSE VOLTAGE: 20 --- 100 V
CURRENT: 5.0 A

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 SMC, molded plastic over passivated chip
- Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
- 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

		SK52C	SK53C	SK54C	SK55C	SK56C	SK58C	SK59C	SK510C	UNITS	
Device marking code		SK52	SK53	SK54	SK55	SK56	SK58	SK59	K510		
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 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	0.55			0.70		0.85			V	
Maximum DC reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage (NOTE1) @ $T_A=100^\circ\text{C}$	I_R	0.5					10				mA
Typical thermal resistance (NOTE2)	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

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FIG.1 – FORWARD DERATING CURVE

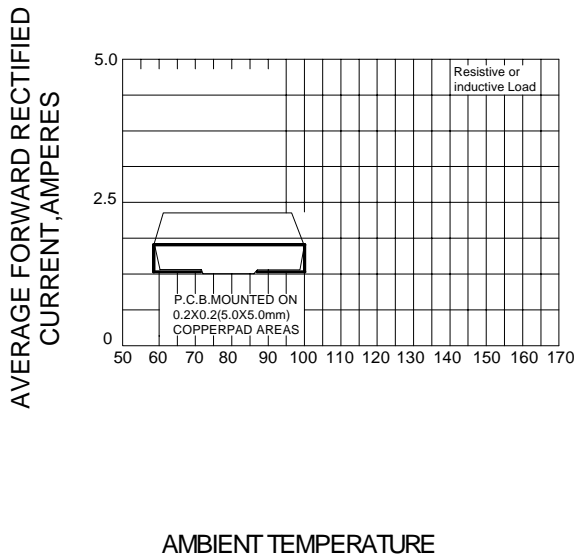


FIG.2- PEAK FORWARD SURGE CURRENT

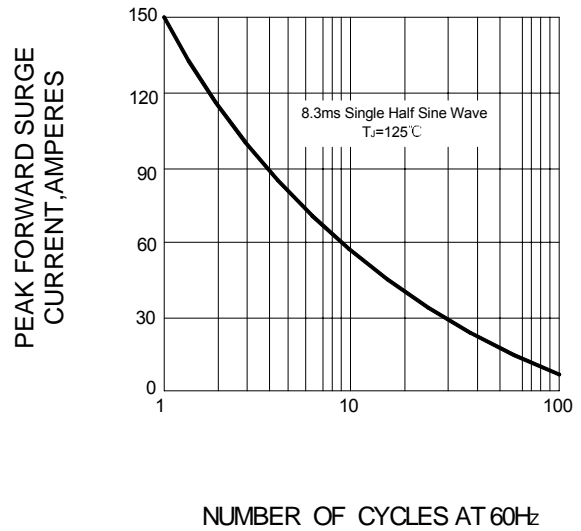


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

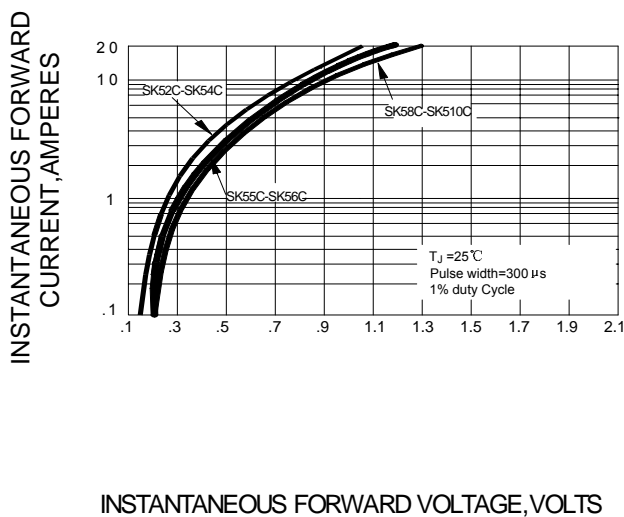


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

