



SK53C THRU SK56C

5.0 AMPS. Surface Mount Schottky Barrier Rectifiers



Voltage Range
30 to 60 Volts
Current
5.0 Amperes

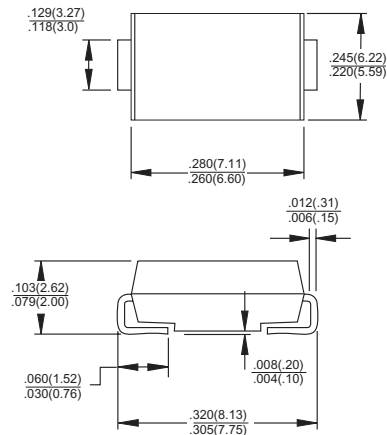
Features

- ✦ For surface mounted application
- ✦ Metal to silicon rectifier, majority carrier conduction
- ✦ Low forward voltage drop
- ✦ Easy pick and place
- ✦ High surge current capability
- ✦ Plastic material used carriers Underwriters Laboratory Classification 94V-0
- ✦ Epitaxial construction
- ✦ High temperature soldering:
260°C / 10 seconds at terminals

Mechanical Data

- ✦ Case: Molded plastic
- ✦ Terminals: Solder plated
- ✦ Polarity: Indicated by cathode band
- ✦ Packaging: 16mm tape per EIA STD RS-481
- ✦ Weight: 0.21 gram

SMC/DO-214AB



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	SK53C	SK54C	SK56C	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	30	40	60	V
Maximum RMS Voltage	V_{RMS}	21	28	42	V
Maximum DC Blocking Voltage	V_{DC}	30	40	60	V
Maximum Average Forward Rectified Current at T_L (See Fig. 1)	$I_{(AV)}$	5.0			A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	100			A
Maximum Instantaneous Forward Voltage (Note 1) @ 5.0A	V_F	0.55		0.75	V
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=100^\circ\text{C}$	I_R	0.5			mA
		20		10	
Typical Thermal Resistance (Note 2)	$R\theta_{JC}$	17			$^\circ\text{C}/\text{W}$
	$R\theta_{JA}$	55			
Operating Temperature Range	T_J	-55 to +125		-55 to +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150			$^\circ\text{C}$

Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle

2. Measured on P.C.Board with 0.6 x 0.6" (16 x 16mm) Copper Pad Areas.

RATINGS AND CHARACTERISTIC CURVES (SK53C THRU SK56C)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

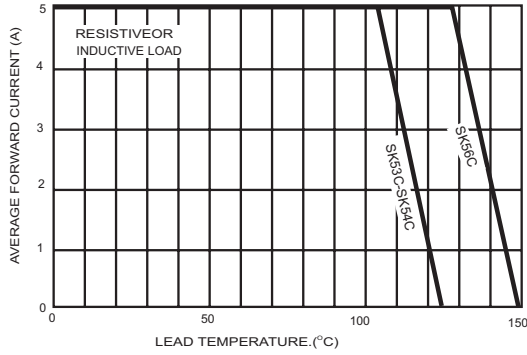


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

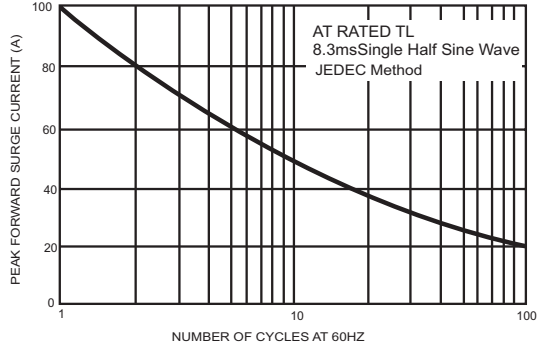


FIG.3- TYPICAL FORWARD CHARACTERISTICS

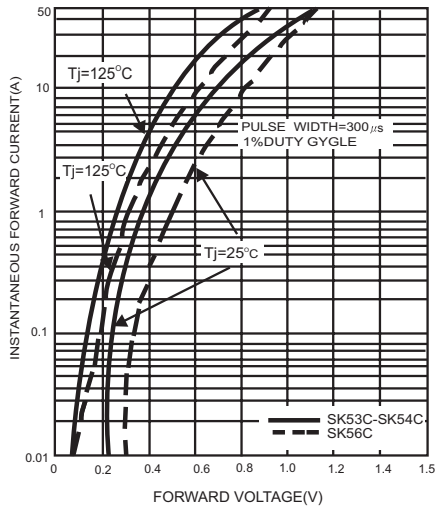


FIG.4- TYPICAL REVERSE CHARACTERISTICS

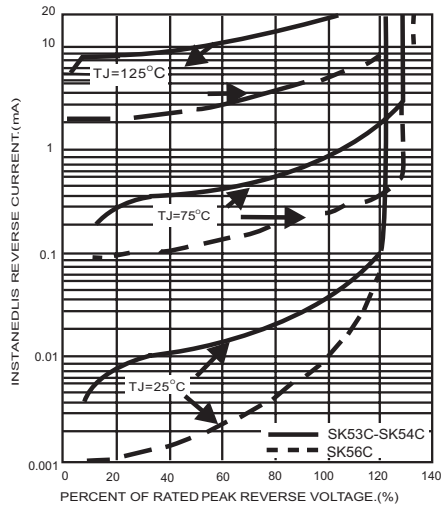


FIG.5- TYPICAL JUNCTION CAPACITANCE

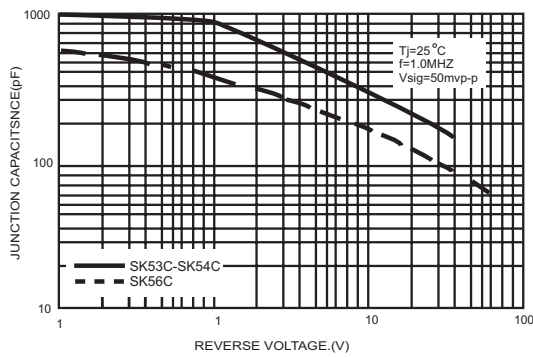


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS

