

TSC	SK82C THRU SK86C 8.0 AMPS. Surface Mount Schottky Barrier Rectifiers							
	Voltage Range 20 to 60 Volts Current 8.0 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	SMC/DO-214AB Dimensions in inches and (millimeters)							
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								
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	SK 82C	SK 83C	SK 84C	SK 85C	SK 86C	Units	
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	V	
Maximum RMS Voltage	V _{RMS}	14	21	28	35	42	V	
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	V	
Maximum Average Forward Rectified Current at T _L (See Fig. 1)	I _(AV)	8.0					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) @8.0A	V _F	0.55			0.75		V	
Maximum DC Reverse Current @ T _A =25°C at Rated DC Blocking Voltage @ T _A =100°C	I _R	0.5					mA	
		20			10		mA	
Typical Thermal Resistance (Note 2)	R θ _{JL}	20					°C/W	
Operating Temperature Range	T _J	-55 to +125			-55 to +150		°C	
Storage Temperature Range	T _{STG}	-55 to +150					°C	

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

2. Measured on P.C.Board with 0.6 x 0.6" (16.0 x 16.0mm) Copper Pad Areas.

RATINGS AND CHARACTERISTIC CURVES (SK82C THRU SK86C)

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

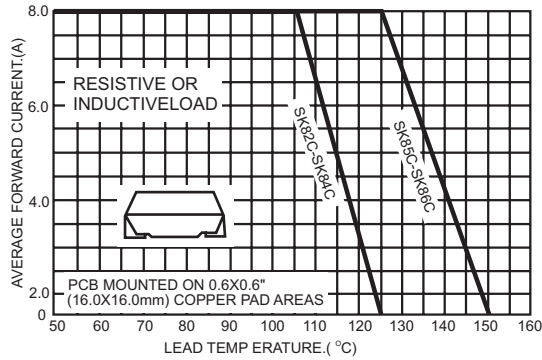


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

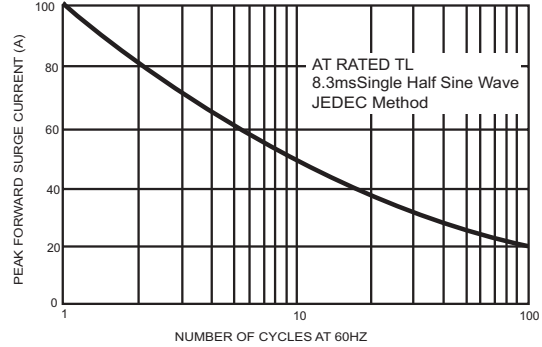


FIG.3-TYPICAL FORWARD CHARACTERISTICS

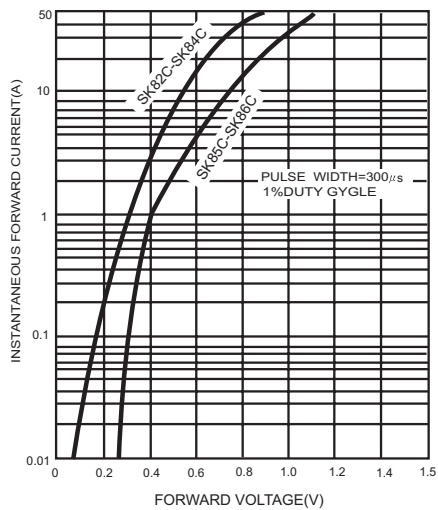


FIG.4-TYPICAL REVERSE CHARACTERISTICS

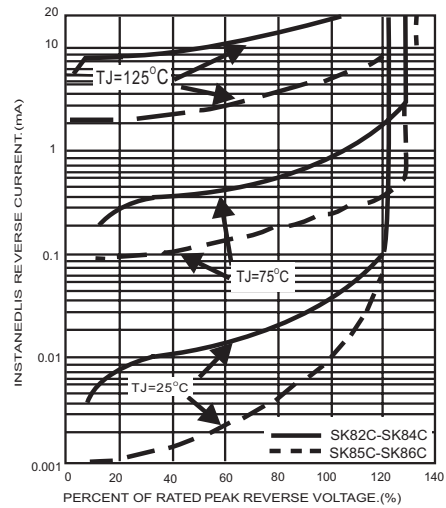


FIG.5-TYPICAL JUNCTION CAPACITANCE

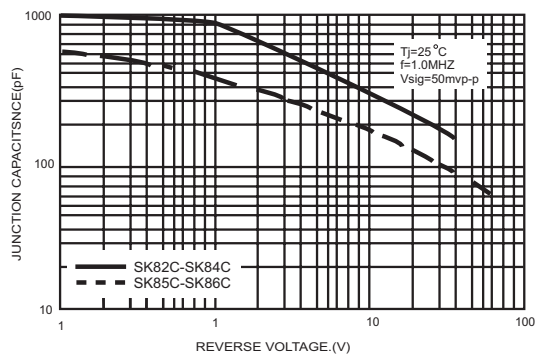


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS

