SKL54C

5.0 AMPS. Surface Mount Schottky Barrier Rectifiers

Voltage Range
40 Volts
Current
5.0 Amperes

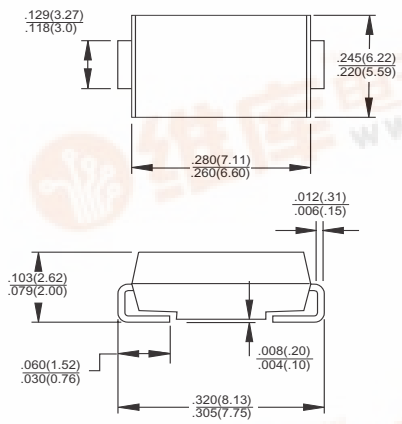
Features

- 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℃ 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	SKL54C	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	V
Maximum RMS Voltage	V_{RMS}	28	V
Maximum DC Blocking Voltage	V_{DC}	40	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}	150	A
Maximum Instantaneous Forward Voltage (Note 1) @5.0A	V_F	0.40	V
Maximum DC Reverse Current @ T_A =25℃	I_R	5	mA
Rated DC Blocking Voltage @ T_A=75℃		50	mA
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	10	℃/W
	$R_{\theta JA}$	75	℃/W
Operating Temperature Range	T_J	-55 to +125	℃
Storage Temperature Range	T_{STG}	-55 to +150	℃

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 (SKL54C)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

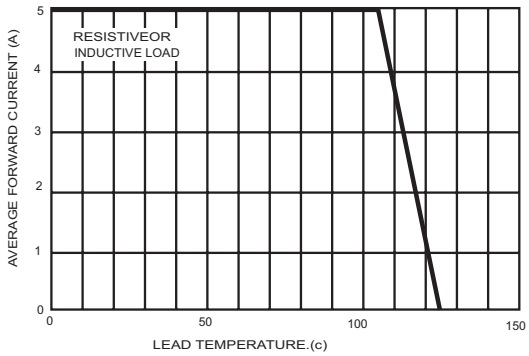


FIG.2-MAXIMUM NON-REPETIVE PEAK FORWARD SURGE CURRENT

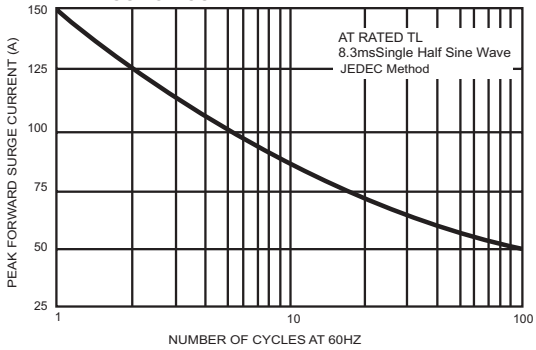


FIG.3-TYPICAL FORWARD CHARACTERISTICS

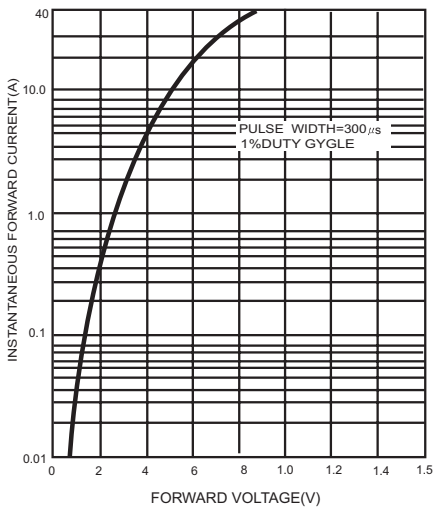


FIG.4-TYPICAL REVERSE CHARACTERISTICS

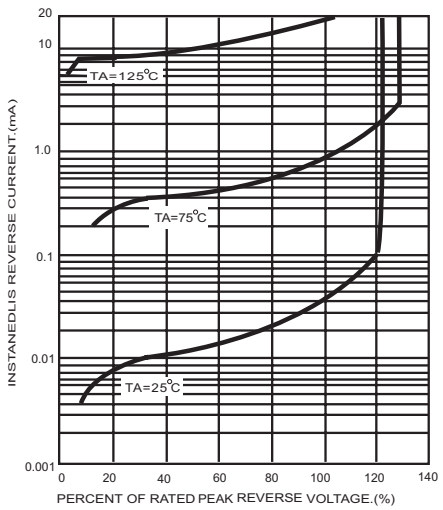


FIG.5-TYPICAL JUNCTION CAPACITANCE

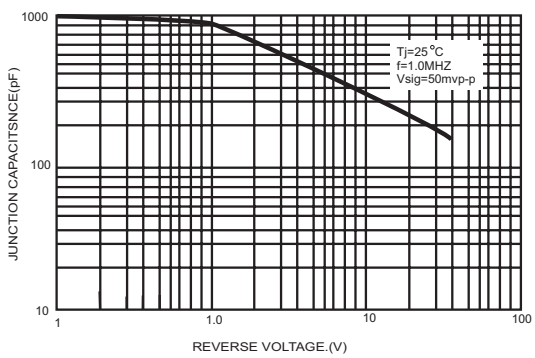


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS