



SK52C - SK520C

5.0AMPS Surface Mount Schottky Barrier Rectifiers

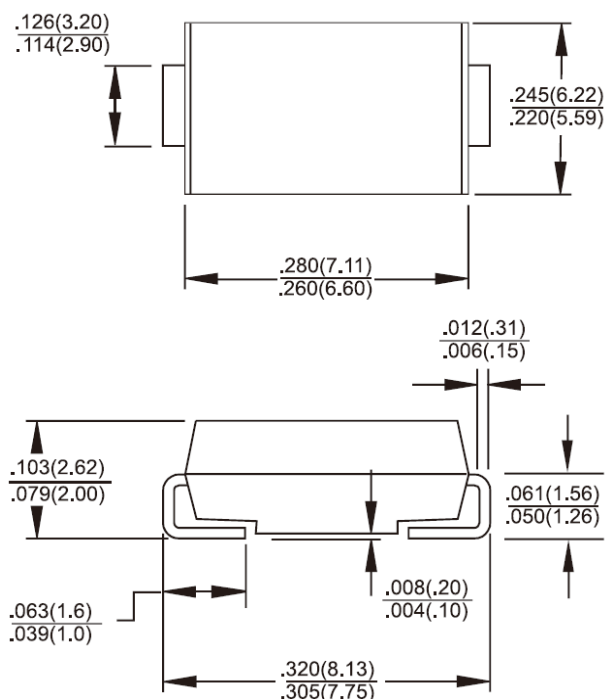
SMC/DO-214AB

Features

- ✧ UL Recognized File # E-326243
- ✧ 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
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode
- ✧ Qualified as per AEC-Q101

Mechanical Data

- ✧ Case: Molded plastic
- ✧ Terminals: Pure tin plated, lead free
- ✧ Polarity: Indicated by cathode band
- ✧ Packaging: 16mm tape per EIA Std RS-481
- ✧ Weight: 0.21 gram



Dimensions in inches and (millimeters)

Marking Diagram



SK5XC = Specific Device Code
 G = Green Compound
 Y = Year
 M = Work Month

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 52C	SK 53C	SK 54C	SK 55C	SK 56C	SK 59C	SK 510C	SK 515C	SK 520C	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	90	100	150	200	V
Maximum RMS Voltage	V _{RMS}	14	21	28	35	42	63	70	105	140	V
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	90	100	150	200	V
Maximum Average Forward Rectified Current	I _{F(AV)}	5									A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	120									A
Maximum Instantaneous Forward Voltage (Note 1) @ 5 A	V _F	0.55			0.75		0.85		0.95		V
Maximum Reverse Current @ Rated VR T _A =25 °C T _A =100 °C T _A =125 °C	I _R	0.5					0.3				mA
		20			10		-				
		-					5				
Typical Thermal Resistance	R _{θJL} R _{θJA}	17 50									°C/W
Operating Temperature Range	T _J	- 55 to + 150									°C
Storage Temperature Range	T _{STG}	- 55 to + 150									°C

Note 1: Pluse Test with PW=300 usec, 1% Duty Cycle

RATINGS AND CHARACTERISTIC CURVES (SK52C THRU SK520C)

FIG. 1 FORWARD CURRENT DERATING CURVE

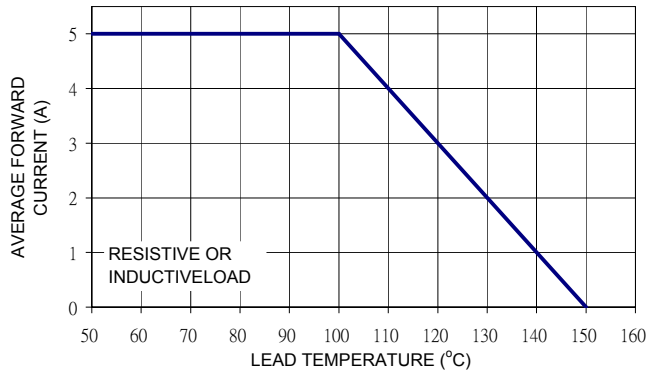


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

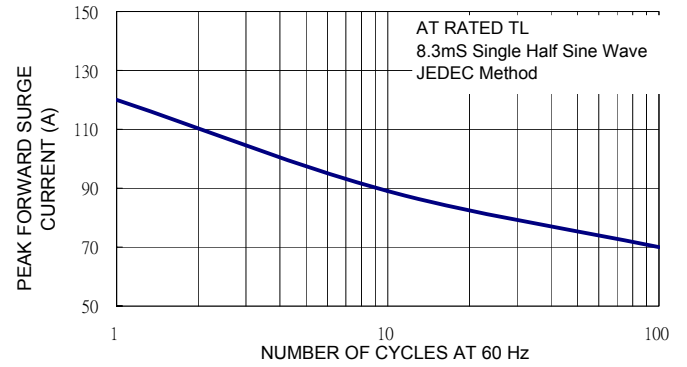


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

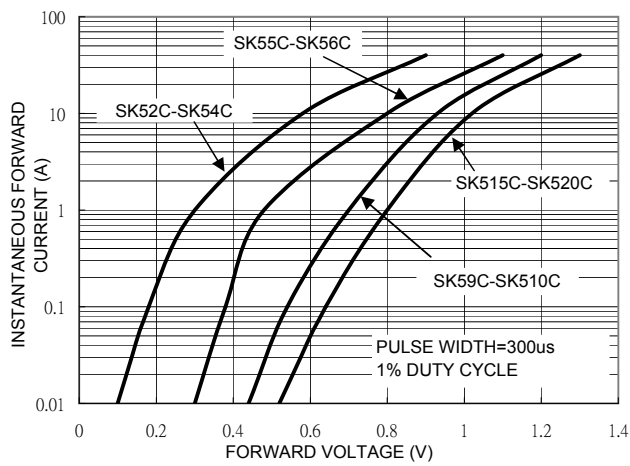


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

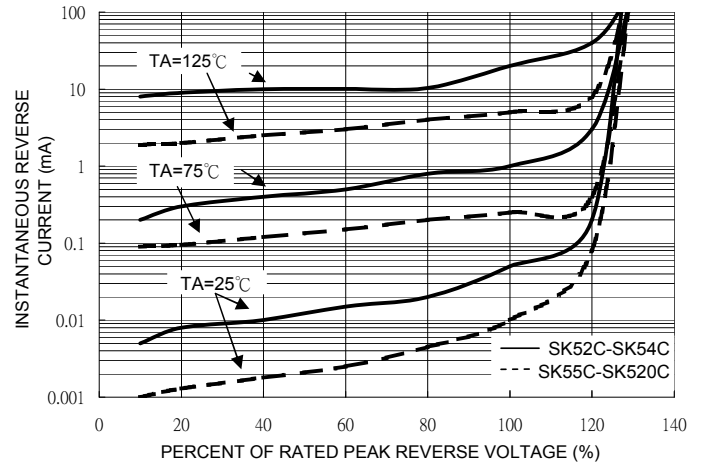


FIG. 5 TYPICAL JUNCTION CAPACITANCE

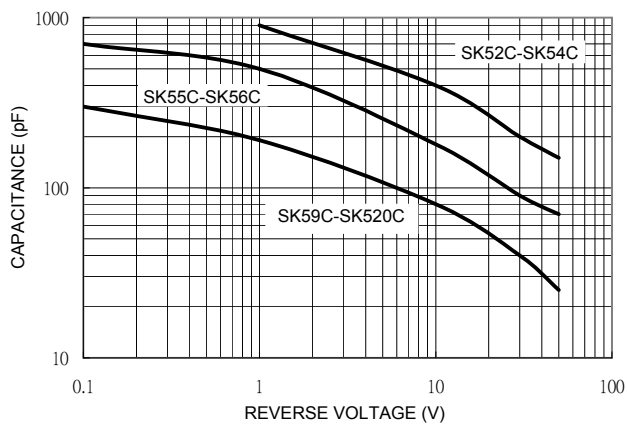


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE

