SK52C THRU SK510C

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts Forward Current - 5.0 Ampere

FEATURES

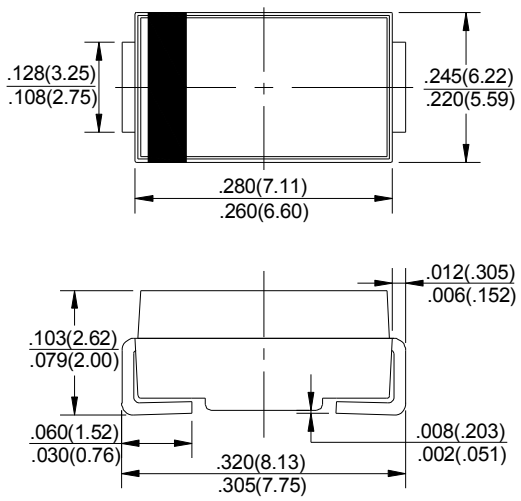
- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Metal silicon junction,majority carrier conduction
- Low reverse leakage
- Built-in strain relief,ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed: 250℃/10 seconds at terminals

MECHANICAL DATA

Case: JEDEC SMC(DO-214AB) molded plastic body
Terminals: Solder plated , solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight:0.007 ounce, 0.24grams

RoHS Compliant

SMC (DO-214AB)



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	SK52C	SK53C	SK54C	SK55C	SK56C	SK58C	SK59C	SK510C	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	30	40	50	60	80	90	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	35	42	56	64	71	V
Average Rectified Output Current @T_L = 90°C	I_O	5.0								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	175								A
Forward Voltage @I_F = 5.0A	V_{FM}	0.50			0.75		0.85			V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 100°C	I_{RM}	0.5 20								mA
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$ $R_{\theta JA}$	14 50								°C/W
Operating Temperature Range	T_j	-65 to +125								°C
Storage Temperature Range	T_{STG}	-65 to +150								°C

Note: 1. Mounted on P.C. Board with 5.0mm^2 copper pad area.

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RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

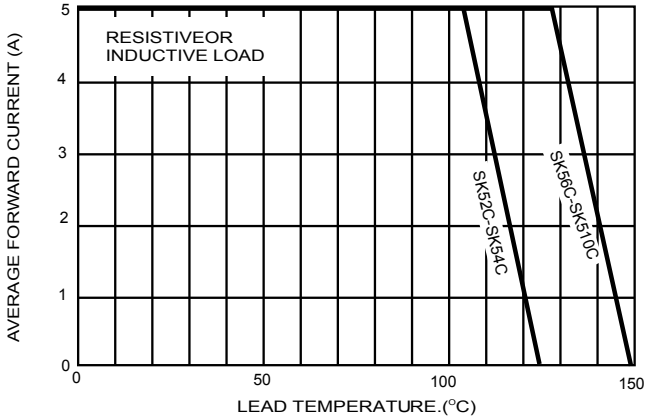

FIG.2-MAXIMUM NON-REPETIVE PEAK FORWARD SURGE CURRENT

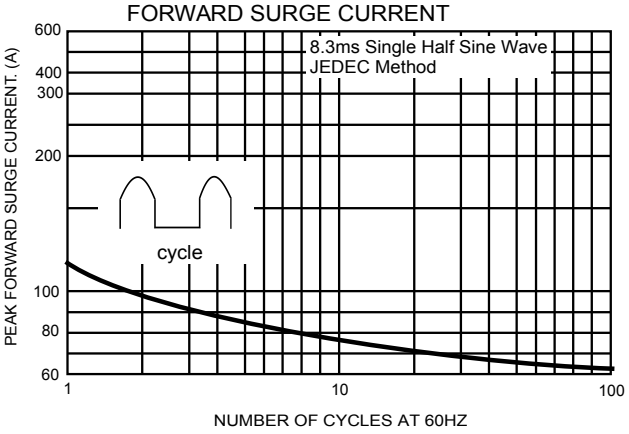

FIG.3-TYPICAL FORWARD CHARACTERISTICS

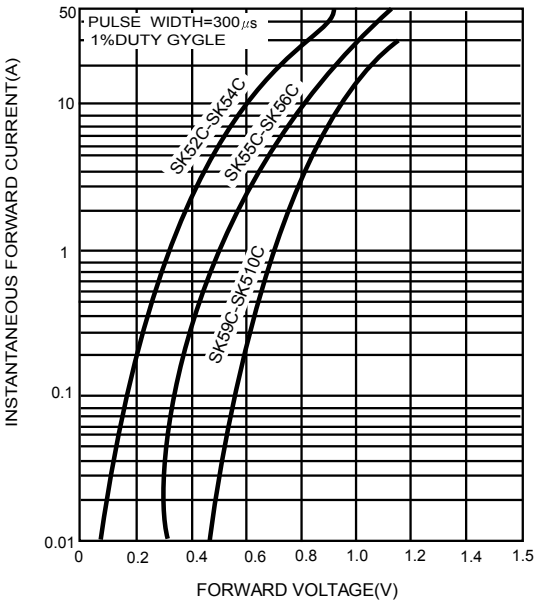

FIG.4-TYPICAL REVERSE CHARACTERISTICS

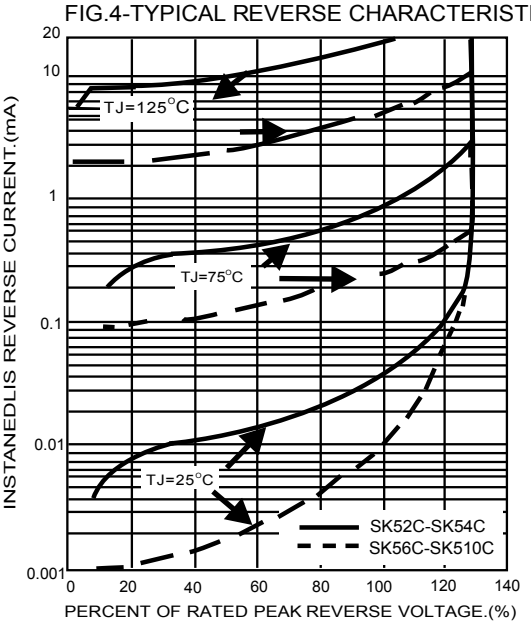

FIG.5-TYPICAL JUNCTION CAPACITANCE

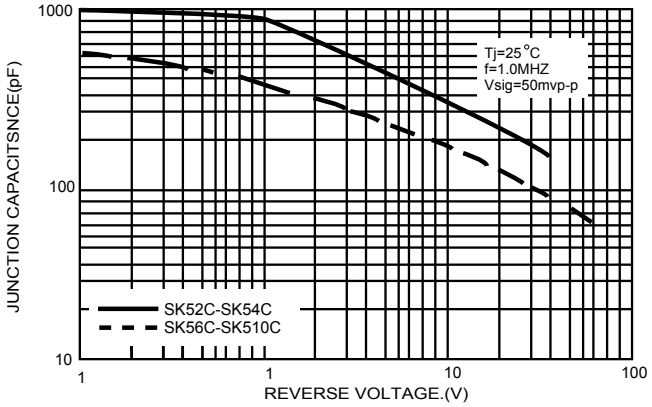

FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS