



SK52C THRU SK510C

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

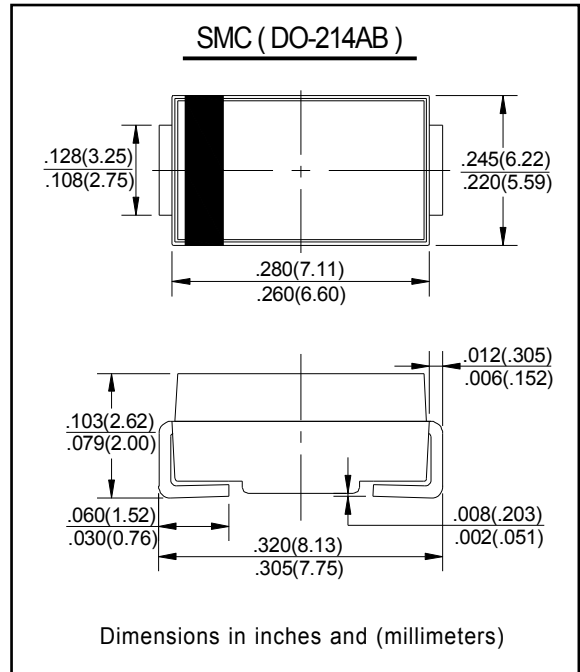
Reverse Voltage - 20 to 100 Volts Forward Current - 5.0 Ampere

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°C/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



Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

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

Note: 1. Mounted on P.C. Board with 5.0mm² copper pad area.



SK52C THRU SK510C

RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

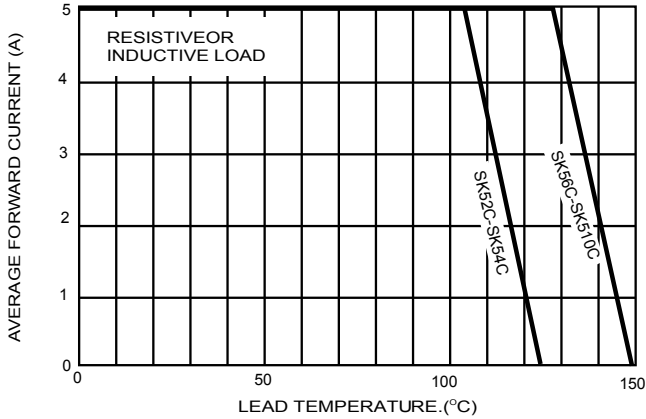


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

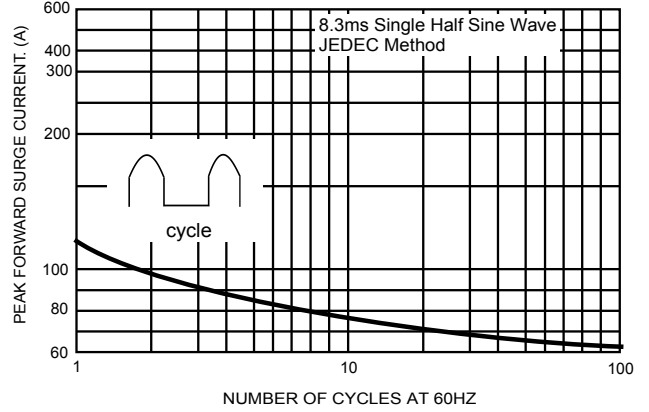


FIG.3-TYPICAL FORWARD CHARACTERISTICS

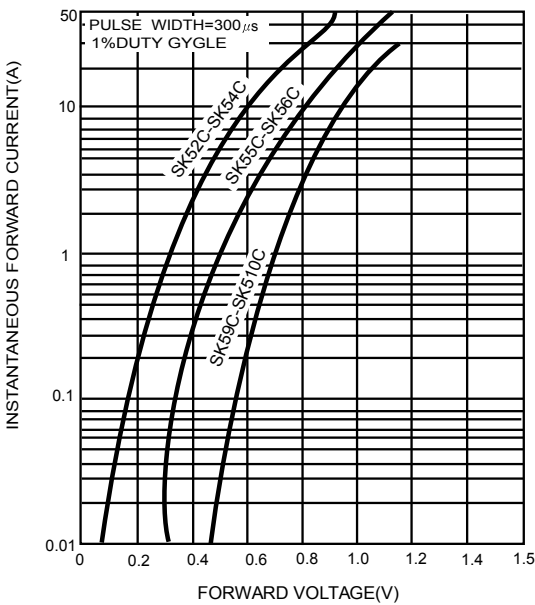


FIG.4-TYPICAL REVERSE CHARACTERISTICS

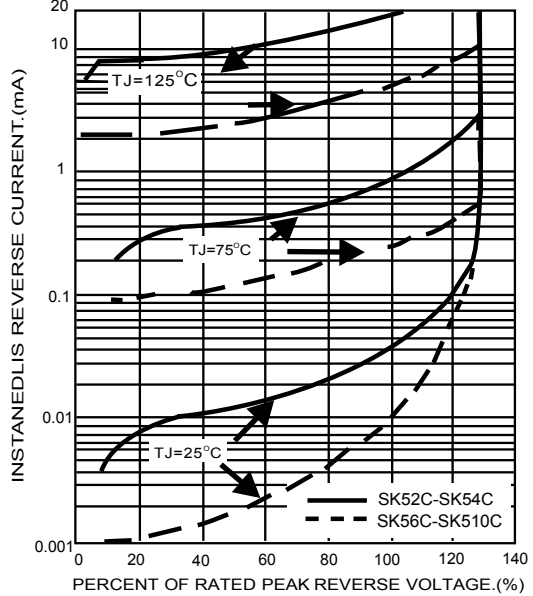


FIG.5-TYPICAL JUNCTION CAPACITANCE

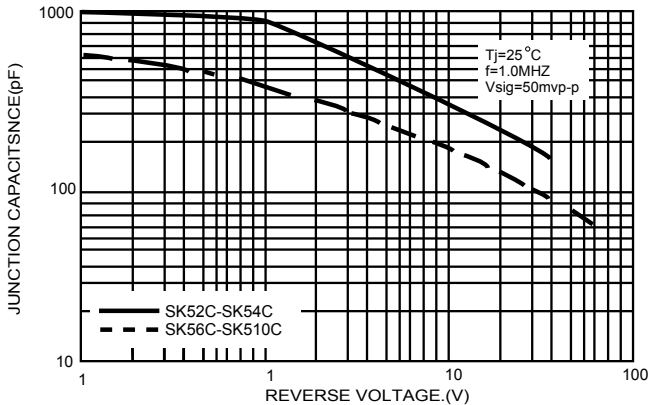


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS

