

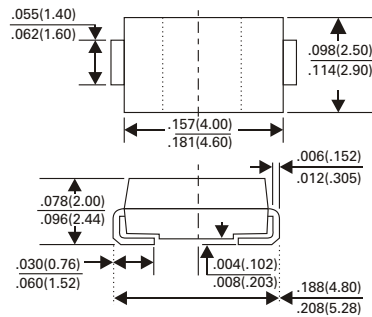
SK12 thru SK110

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE - 20 TO 100 VOLTS CURRENT - 1.0 AMPERES



SMA/DO-214AC



Dimensions in inches and (millimeters)

FEATURES

- For surface mount applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Low forward voltage drop
- Metal to silicon rectifier, majority carrier conduction
- Low power loss, high efficiency
- High current and surge capability
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High temperature soldering :
250°C/10 seconds at terminals

MECHANICAL DATA

Case : JEDEC DO-214AC molded plastic
 Terminals : Solder plated, solderable per MIL-STD-202, Method 208
 Polarity : Color band denotes cathode end
 Standard Package : 12mm tape (EIA STD EIA-481)
 Weight : 0.002 ounce, 0.064gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified
 Single phase, half wave, 60Hz, resistive or inductive load
 For capacitive load, derate current by 20%

	SYMBOL	SK12	SK13	SK14	SK15	SK16	SK18	SK19	SK110	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	90	100	Volts
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	64	71	Volts
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	90	100	Volts
Maximum Average Forward Rectified Current at T_L (Figure 1)	$I_{(AV)}$	1.0								Amps
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30								Amps
Maximum Instantaneous Forward Voltage at 1.0A	V_F	0.5		0.7		0.85				Volts
Maximum DC Reverse Current (NOTE 1) $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A=100^\circ\text{C}$	I_R	0.5				20				mA
Maximum Thermal Resistance (NOTE 2)	$R_{\theta JA}$ $R_{\theta JL}$	75				17				$^\circ\text{C} / \text{W}$
Operating Junction Temperature Range	T_J	-55 to +125								$^\circ\text{C}$
Storage and Operating Temperature Range	T_{STG}	-55 to +150								$^\circ\text{C}$

NOTES :

1. Pulse test with 300 μs pulse width, 1% duty cycle
2. P.C.B. mounted on 0.2x0.2" (5.0x5.0mm) copper pad areas

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RATINGS AND CHARACTERISTIC CURVES SK12 THRU SK110

FIG.1 - FORWARD CURRENT DERATING CURVE

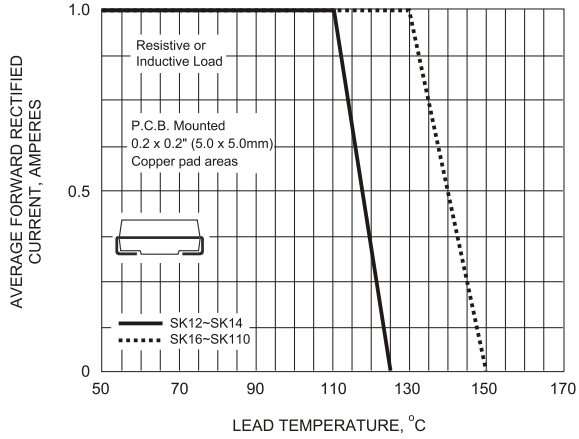


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

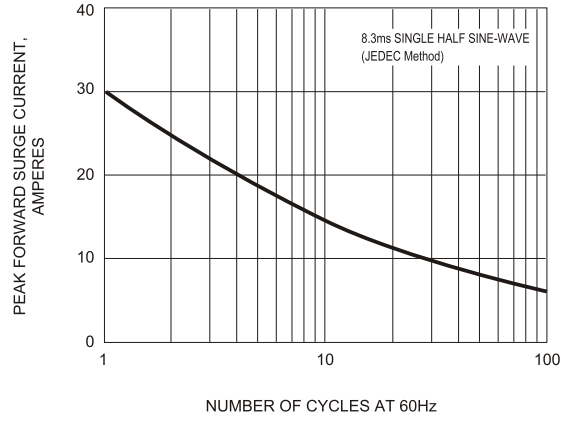


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

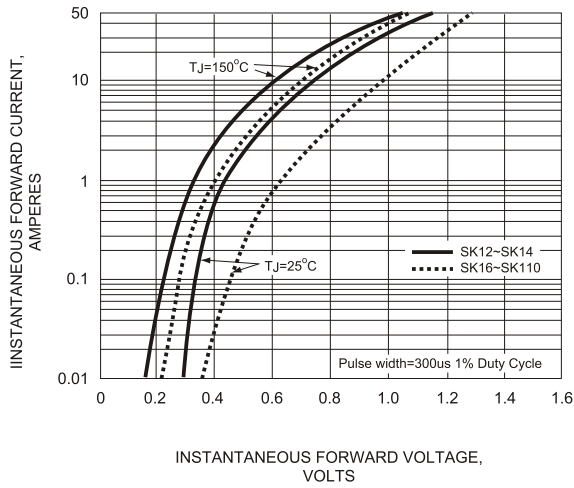


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

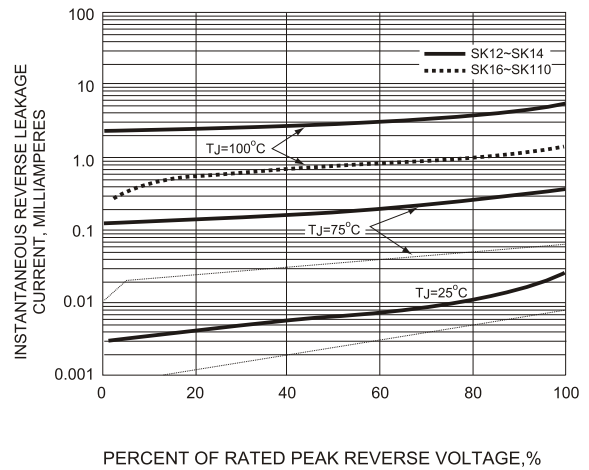


FIG.5 - TYPICAL JUNCTION CAPACITANCE

