

SK12 THRU SK110

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage – 20 to 100 Volts

Forward Current – 1.0 Ampere

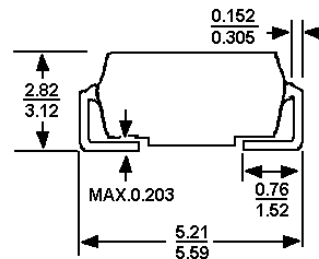
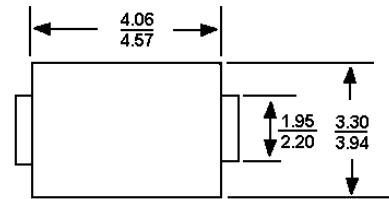
Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- 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 DO-214AA molded plastic body
- Terminals: leads solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any

SMB/DO214AA



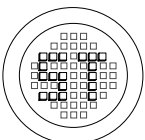
Dimensions in mm

Maximum Ratings and Electrical Characteristics @ 25°C unless otherwise specified.
Single phase, half-wave, 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

	Symbols	SK12	SK13	SK14	SK15	SK16	SK18	SK110	Units
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	V
Maximum average forward rectified current at T_L (see fig.1)	$I_{F(AV)}$	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	40.0							A
Maximum instantaneous forward voltage at 1.0A	V_F	0.45	0.55	0.70		0.85		V	
Maximum DC reverse current at rated DC blocking voltage	I_R	0.5							mA
$T_A = 25^\circ C$ $T_A = 100^\circ C$		6.0			5.0				
Typical junction capacitance (Note 1)	C_J	110			90			pF	
Typical thermal resistance (Note 2)	$R_{\theta JA}$	88.0							$^\circ C/W$
Operating junction temperature range	T_J	-65 to +125			-65 to +150			$^\circ C$	
Storage temperature range	T_{STG}	-65 to +150							$^\circ C$

Notes: 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts D.C.

2. P.C.B. mounted with 0.2x0.2 (5.0x5.0mm) copper pad areas.



®

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FIG.1-FORWARD CURRENT DERATING CURVE

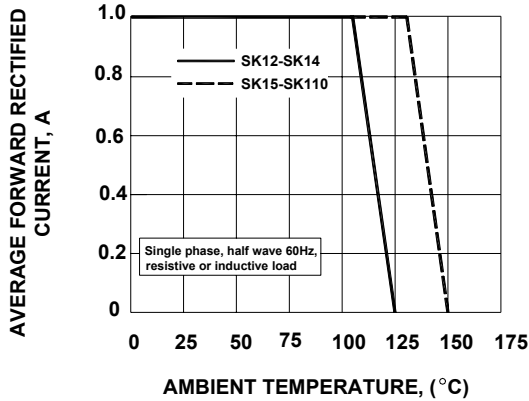


Fig.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

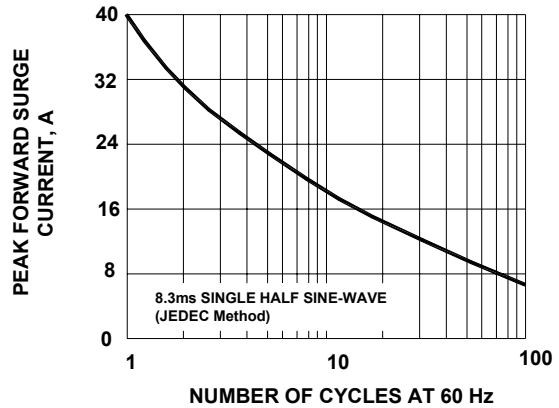


Fig.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

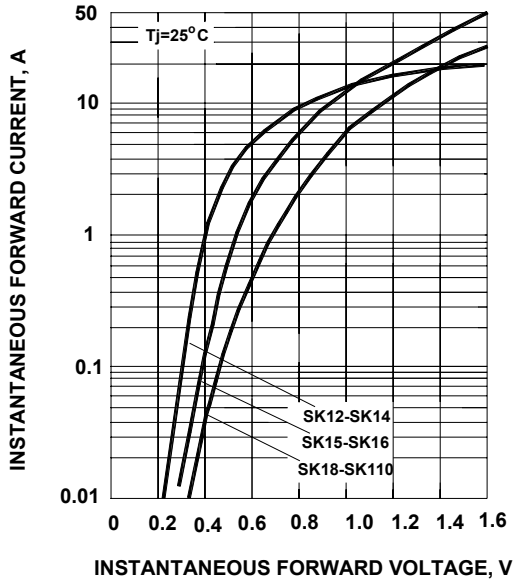


Fig.4- TYPICAL REVERSE CHARACTERISTICS

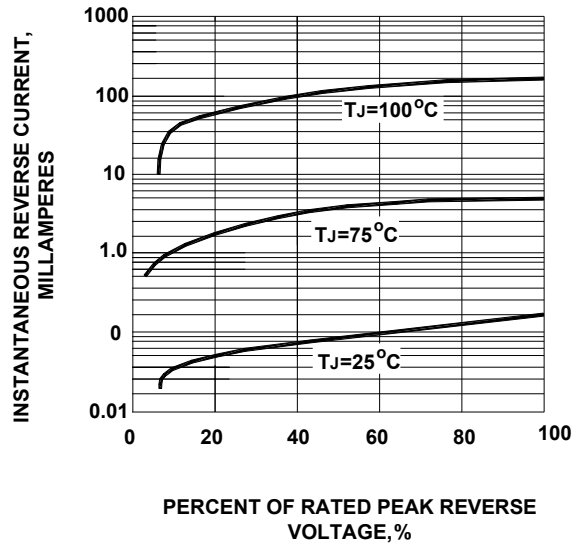


Fig.5- TYPICAL JUNCTION CAPACITANCE

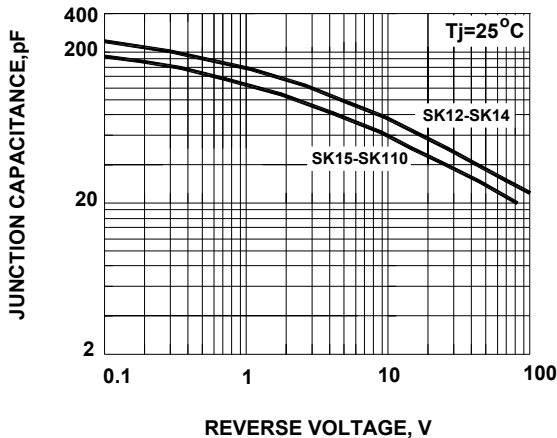
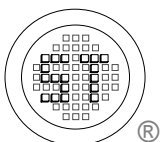
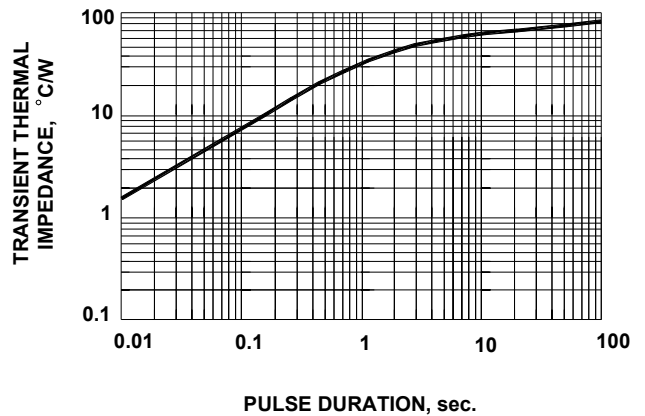
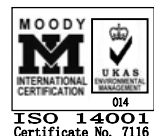
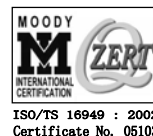


Fig.6- TYPICAL TRANSIENT THERMAL IMPEDANCE



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