



DATA SHEET

SK52~S510

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER VOLTAGE- 20 to 100 Volts CURRENT- 5.0 Amperes

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier, majority carrier conduction
- Low power loss, high efficiency
- High surge capacity
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed: 260°C /10 seconds at terminals

MECHANICAL DATA

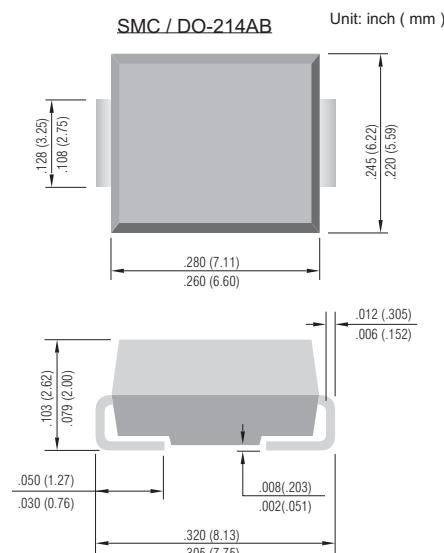
Case: JEDEC DO-214AB molded plastic

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes positive end (cathode)

Standard packaging: 16mm tape (EIA-481)

Weight: 0.007 ounce, 0.21 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Resistive or inductive load.

	SYMBOLS	SK52	SK53	SK54	SK55	SK56	SK58	SK59	S510	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20.0	30.0	40.0	50.0	60.0	80.0	90.0	100.0	V
Maximum RMS Voltage	V _{RMS}	14.0	21.0	28.0	35.0	42.0	56.0	63.0	70.0	V
Maximum DC Blocking Voltage	V _{DC}	20.0	30.0	40.0	50.0	60.0	80.0	90.0	100.0	V
Maximum Average Forward Rectified Current at T _L (See figure 1)	I(AV)						5.0			A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}						100.0			A
Maximum Instantaneous Forward Voltage at 5.0A (Note 1)	V _F		0.50		0.75		0.85			V
Maximum DC Reverse Current (Note 1) Ta= 25°C at Rated DC Blocking Voltage Ta=100°C	I _R				0.5		20.0			mA
Maximum Thermal Resistance (Note 2)	R _{θJL} R _{θJA}				17.0		55.0			°C/W
Operating and Storage Temperature Range T _J	T _J				-50 to +125					°C
Storage Temperature Range	T _{STG}				-55 to +150					°C

NOTES:

A. Pulse Test with PW = 300μsec, 2% Duty Cycle.

B. Mounted on P.C. Board with 14mm² (.013mm thick) copper pad areas.



RATING AND CHARACTERISTIC CURVES

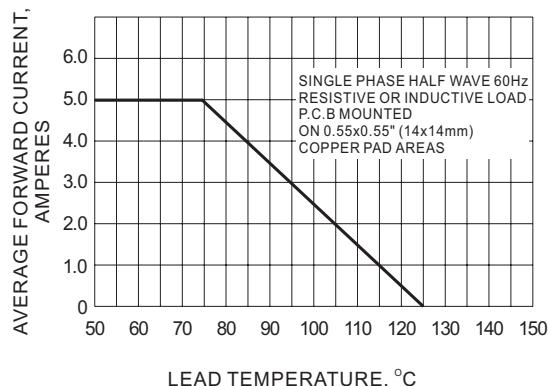


Fig.1- FORWARD CURRENT DERATING CURVE

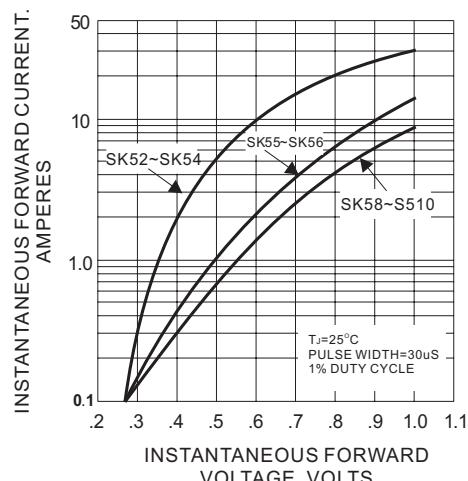


Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

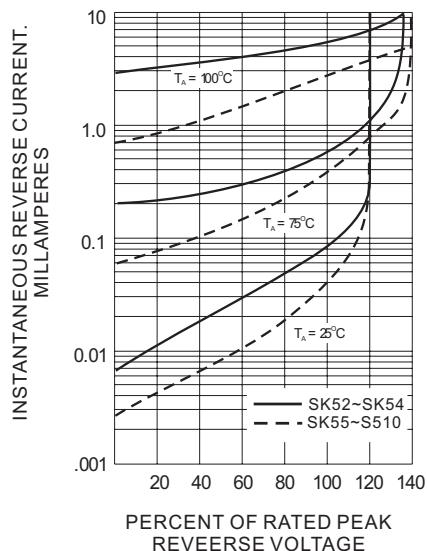


Fig.3- TYPICAL REVERSE CHARACTERISTICS

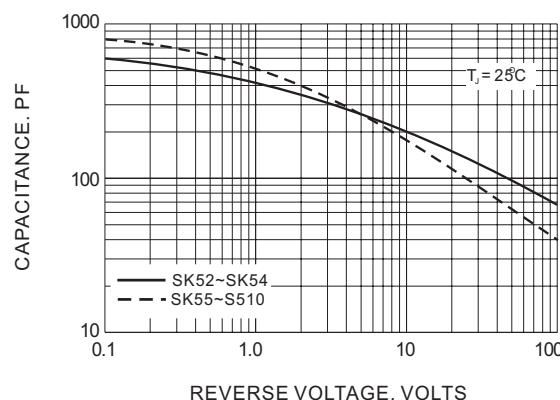


Fig.4- TYPICAL JUNCTION CAPACITANCE

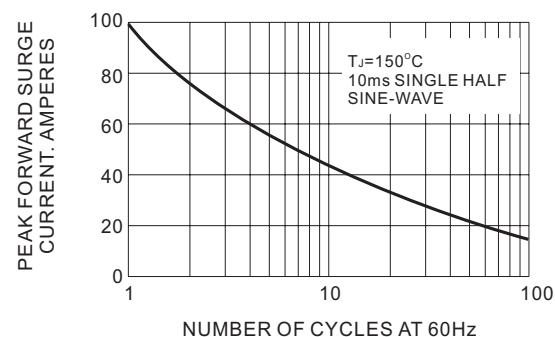


Fig.5- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT