



SM Technology Co., Limited

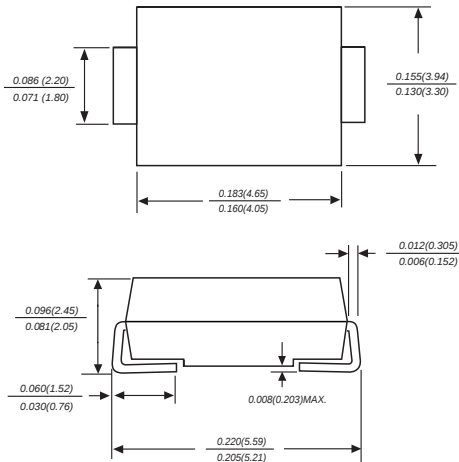
SS82 THRU SS810 SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts

Forward Current - 8.0 Amperes

SMB

DO-214AA



Dimensions in inches and (millimeters)

FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Construction utilizes void-free molded plastic technique
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:
250°C, 0.25" (6.35mm) from case for 10 seconds

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

Weight: 0.005 ounce, 0.138 grams

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 current derate by 20%.

	SYMBOLS	SS82	SS83	SS84	SS85	SS86	SS88	SS89	SS810	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	63	70	VOLTS
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	80	90	100	VOLTS
Maximum average forward rectified current (see fig.1)	I _(AV)	8.0								Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	200								Amps
Maximum instantaneous forward voltage at 8.0A	V _F	0.55			0.70		0.85			Volts
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =100°C	I _R	0.5					0.1			mA
		15.0					5.0			
Typical junction capacitance (NOTE 1)	C _J	300								pF
Typical thermal resistance (NOTE 2)	R _{θJC}	3.0								°C/W
Operating junction temperature range	T _J	-65 to +125			-65 to +150					°C
Storage temperature range	T _{STG}	-65 to +150								°C

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

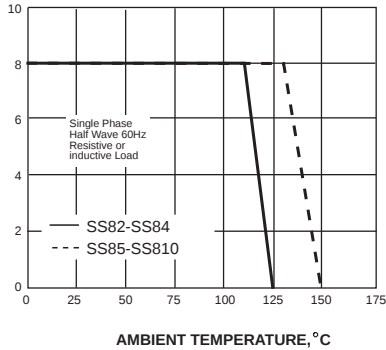
2. P.C.B. mounted with 0.4x0.4" (10x10mm) copper pad areas



RATINGS AND CHARACTERISTIC CURVES SS82 THRU SS810

AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT,
AMPERES

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

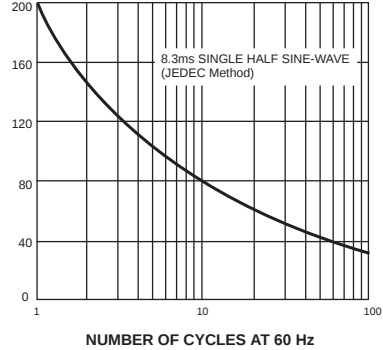


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

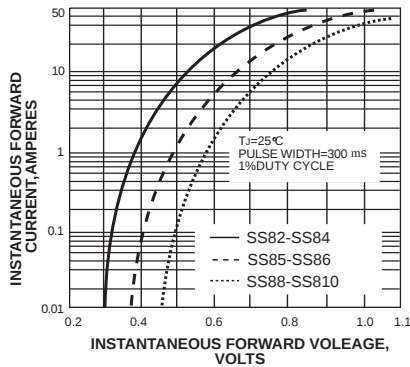


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

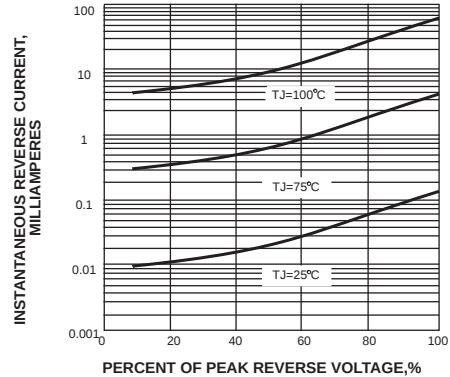


FIG. 5-TYPICAL JUNCTION CAPACITANCE

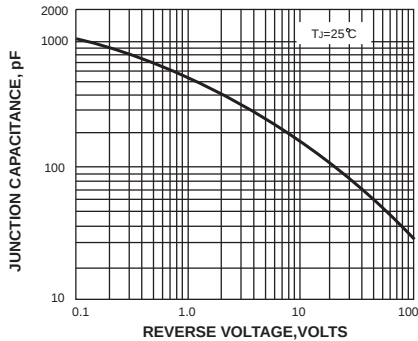


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

