

SURFACE MOUNT SCHOTTKY RECTIFIERS

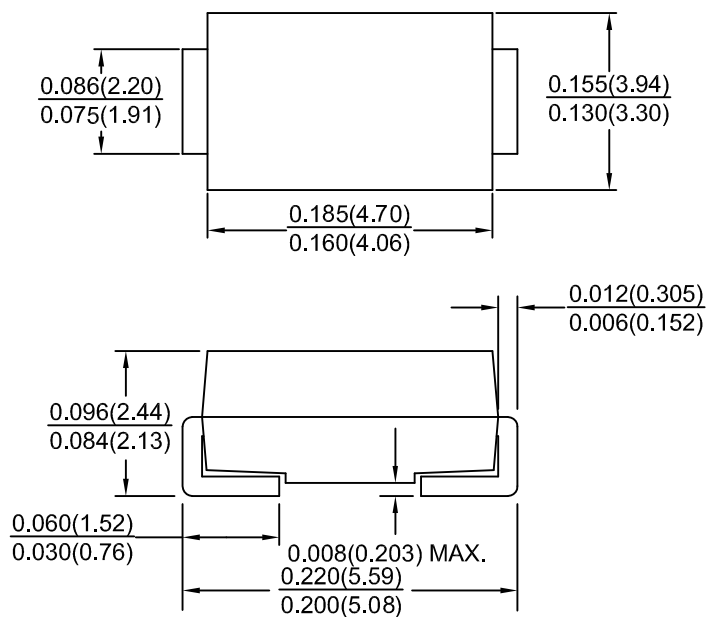
FEATURES:

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Metal silicon junction, majority carrier conduction
- Low power loss,high efficiency
- High current capability, low forward voltage drop
- High surge capability
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Guard ring for overvoltage protection
- High temperature soldering guaranteed: 250° C/10 seconds at terminals

MECHANICAL DATA

Case : JEDEC DO-214AA molded plastic body
 Terminals : Solder plated, solderable per MIL-STD-750 Method 2026
 Polarity : Color band on body denotes cathode end
 Weight : 0.039 grams, 0.003 ounce

SMB/DO-214AA



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Characteristic	Symbol	SB52	SB53	SB54	SB55	SB56	SB58	SB5A0	Units
Maximum recurrent peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	Volts
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	Volts
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	Volts
Maximum average forward rectified current at T_L (See figure.1)	$I_{(AV)}$	5.0							Amps
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load (JEDEC METHOD)	I_{FSM}	100							Amps
Maximum instantaneous forward voltage (NOTE 1) $I_F=5.0A$	V_F	0.55			0.70		0.85		Volts
Maximum instaneous reverse current at rated DC blocking voltage $T_c=25\text{ }^\circ\text{C}$ $T_c=100\text{ }^\circ\text{C}$	I_R	0.5 50							mA
Operating temperature range	T_J	-65to+125							°C
Storage temperature range	T_{Stg}	-65to+150							°C

Note:
 (1) Pulse test : 300 us pulse width, 1% duty cycle

RATINGS AND CHARACTERISTIC CURVES SB52 THRU SB5A0

FIG.1 - TYPICAL FORWARD CURRENT DERATING CURVE

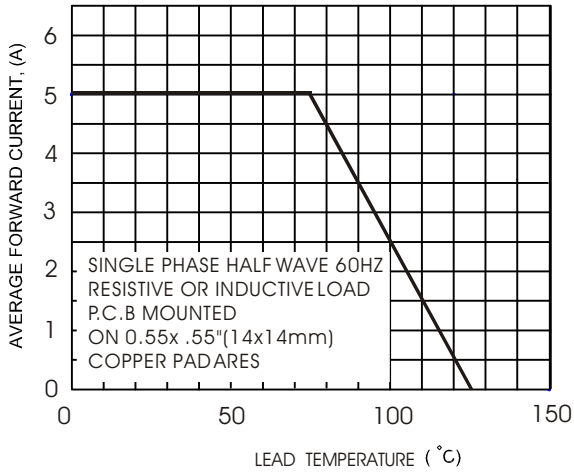


FIG.2 - TYPICAL FORWARD CHARACTERISTICS

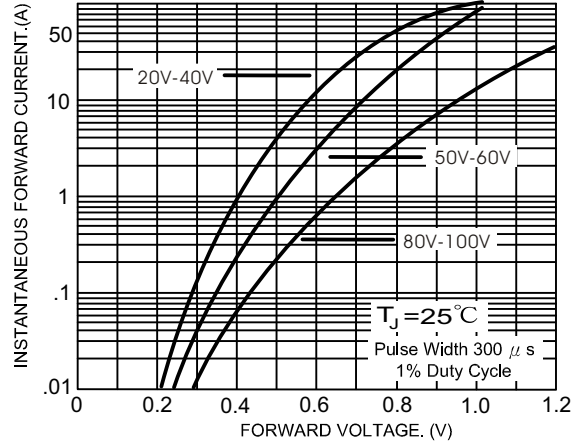


FIG.3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

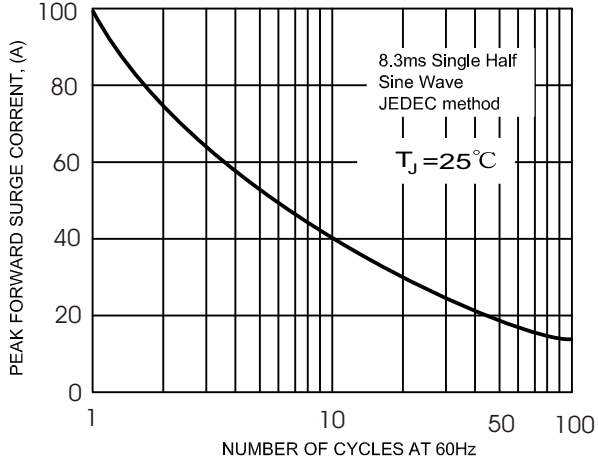


FIG.5- TYPICAL REVERSE CHARACTERISTICS

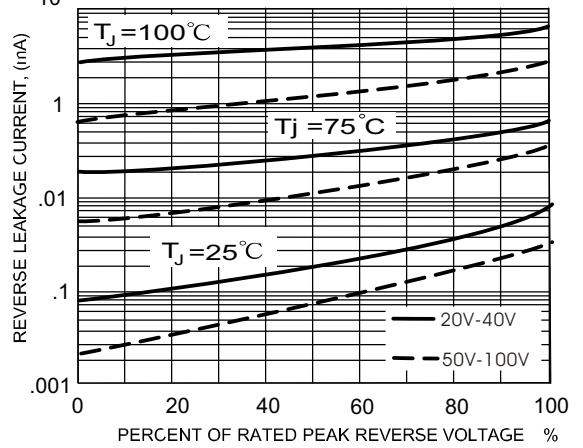


FIG.4- TYPICAL JUNCTION CAPACITANCE

