

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE: 20 --- 100 V

CURRENT: 5.0A

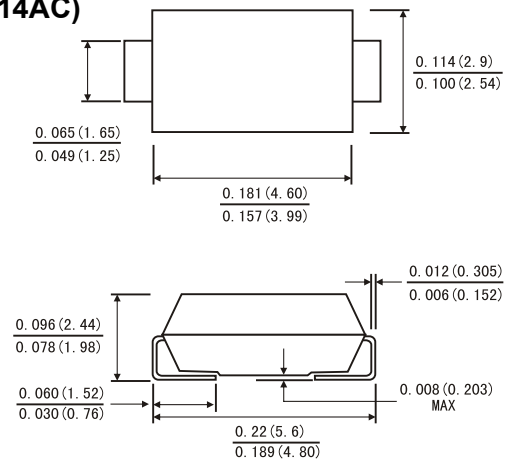
FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Metal silicon junction, majority carrier conduction
- Low reverse leakage
- Built-in strain relief, ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed: 250 C/10 seconds at terminals

MECHANICAL DATA

- Case: JEDEC SMA(DO-214AC), molded plastic
- Terminals: Axial lead, solderable per ML-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.002 ounces, 0.064 grams
- Mounting position: Any

SMA(DO-214AC)



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	SS52A	SS53A	SS54A	SS55A	SS56A	SS58A	SS510A	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)	$I_{(AV)}$	5.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	120.0							A
Maximum instantaneous forward voltage at 5.0A	V_F	0.55		0.70		0.85		V	
Maximum DC reverse current at rated DC blocking voltage	I_R	0.5		0.1		2.0		mA	
$T_A=25^\circ C$ $T_A=100^\circ C$		20		10					
Typical junction capacitance (NOTE 1)	C_J	300							pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	75							$^\circ C/W$
Operating junction temperature range	T_J	-55 to +125			-55 to +150				$^\circ C$
Storage temperature range	T_{STG}	-55 to +150							$^\circ C$

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

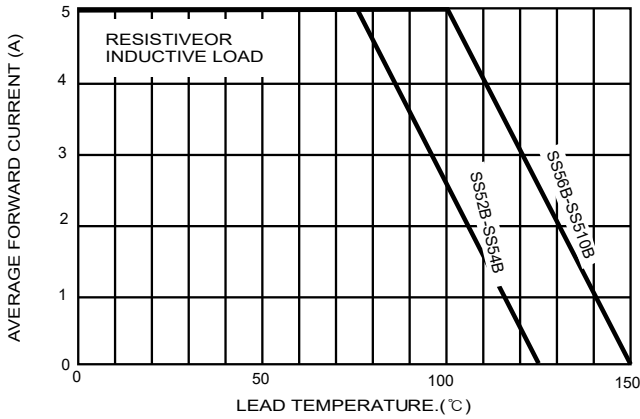


FIG.2 - TYPICAL FORWARD CHARACTERISTICS

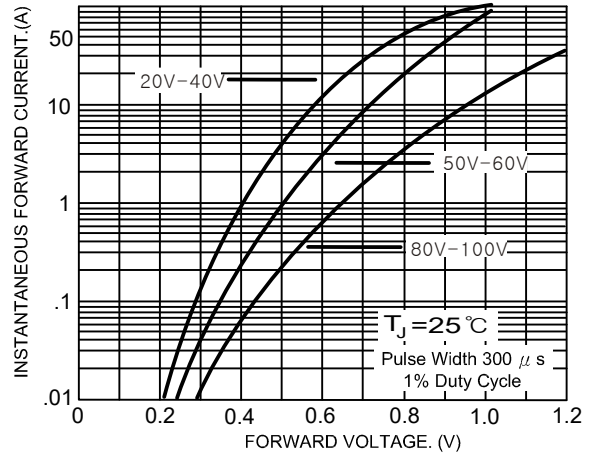


FIG.3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

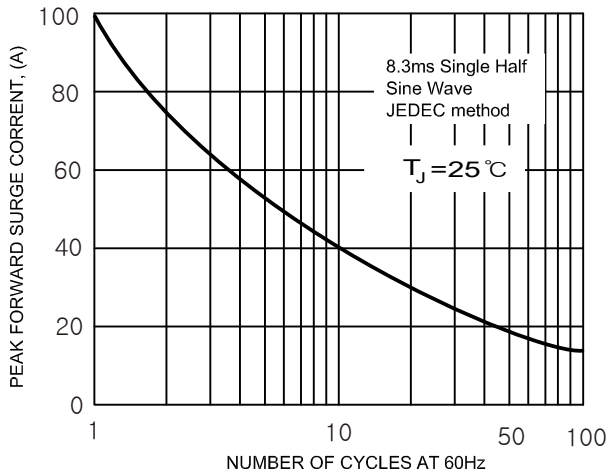


FIG.4 - TYPICAL JUNCTION CAPACITANCE

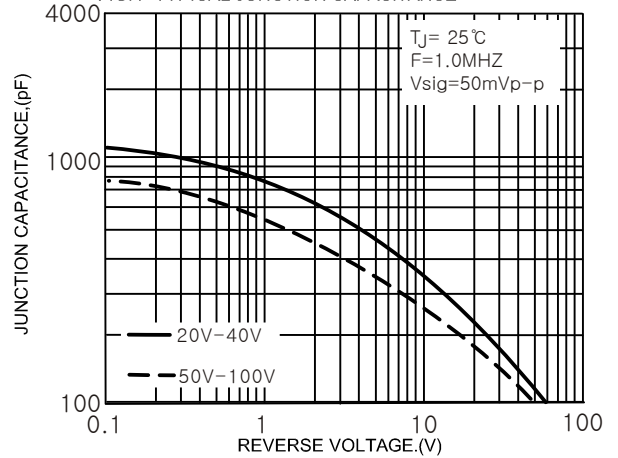


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

