Shinsemi

SS52 THRU SS520

SCHOTTKY BARRIER RECTIFIERS

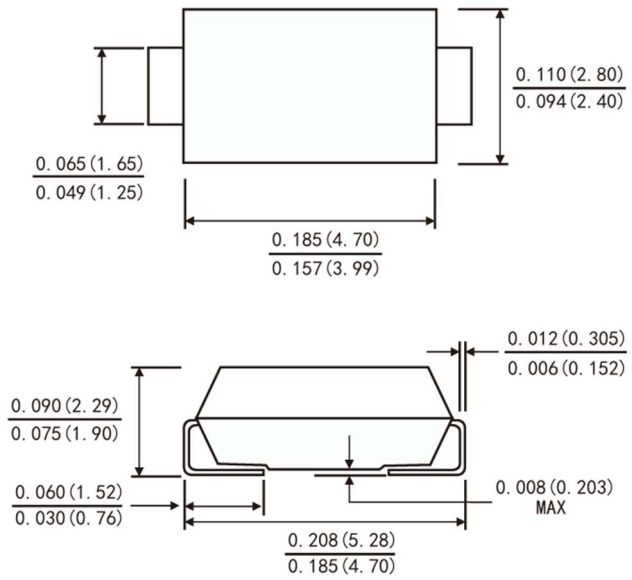
REVERSE VOLTAGE: 20 to 200 VOLTS

FORWARD CURRENT: 5.0 AMPERE

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- For surface mounted applications
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU

SMA(DO-214AC)



Dimensions in inches and (millimeters)

Mechanical Data

- Case: JEDEC SMA(DO-214AC)
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026 guaranteed
- Polarity: Color band denotes cathode end
- Reel: 5000Pcs

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified. Single phase, half wave, 60HZ, resistive or inductive load.

For capacitive load, derate current by 20%.

Parameter / Marking Code		Symbols	SS 52	SS 53	SS 54	SS 56	SS 510	SS 515	SS 520	Units
Maximum repetitive peak reverse voltage		V_{RRM}	20	30	40	60	100	150	200	Volts
Maximum RMS voltage		V_{RMS}	14	21	28	42	71	105	140	Volts
Maximum DC blocking voltage		V_{DC}	20	30	40	60	100	150	200	Volts
Maximum average forward rectified current (see fig.1)		$I_{(AV)}$	5.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated T_L)		I_{FSM}	150.0							Amps
Maximum instantaneous forward voltage at 5.0 A(Note 1)		V_F	0.55			0.70	0.85	0.90	0. 95	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	T_A=25°C	I_R	100				20			μA
	T_A=100°C		5				–			mA
	T_A=125°C		–				3			
Typical junction capacitance(Note 3)		C_J	500				400			PF
Typical thermal resistance (Note 2)		$R_{\theta JA}$ $R_{\theta JL}$	88. 0 28. 0							°C/W
Operating junction temperature range		T_J	-55 to+150							°C
Storage temperature range		T_{STG}	-55 to+150							°C

NOTES:

1. Pulse test: 300μs pulse width, 1% duty cycle
2. P.C.B. mounted with 0.55 x 0.55" (14 x 14mm) copper pad areas
3. Measured at 1MHz and reverse voltage of 4.0 volts

RATINGS AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

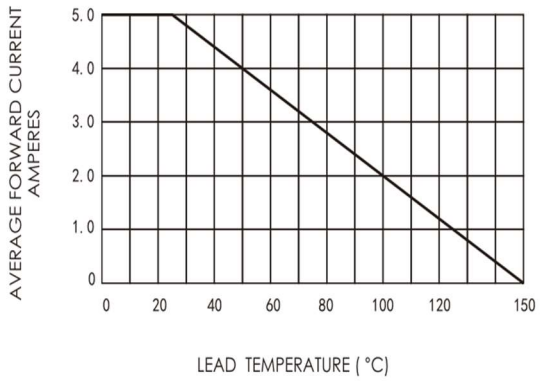


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

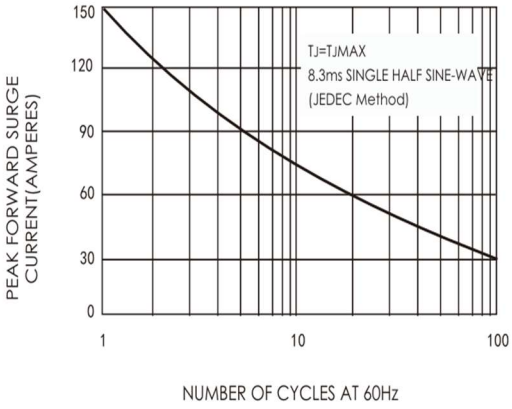


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

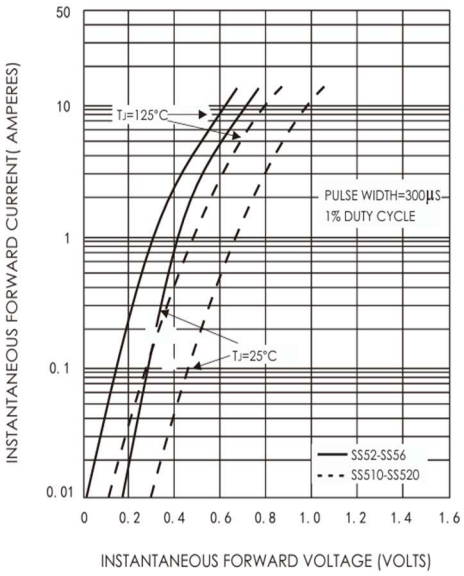


FIG.4-TYPICAL REVERSE CHARACTERISTICS

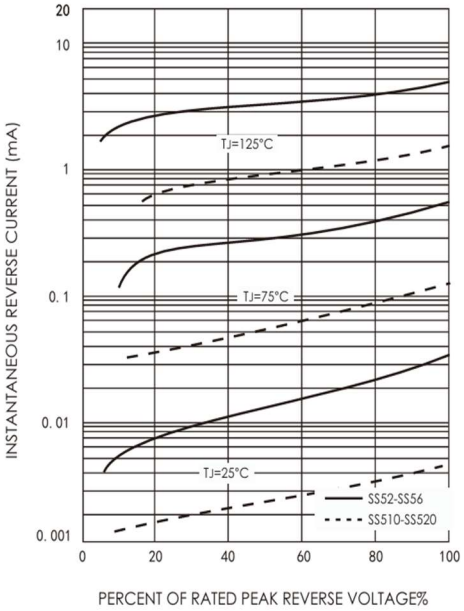


FIG.5-TYPICAL JUNCTION CAPACITANCE