

SS52A THRU SS510A

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

REVERSE VOLTAGE 20 to 100 Volts FORWARD CURRENT 5.0 Ampere

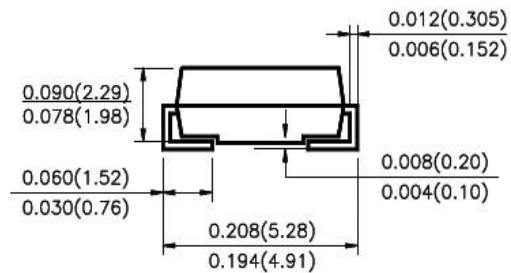
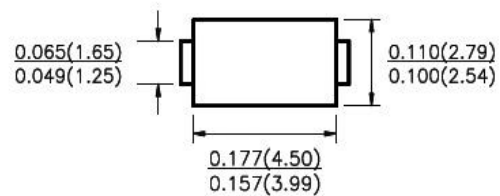
FEATURES

- ◆ Low profile surface mount package
- ◆ Built-in strain relief
- ◆ High switching speed
- ◆ Low voltage drop, high efficiency
- ◆ For use in low voltage high frequency inverters, Free willing, and polarity protection applications
- ◆ Guarding for over voltage protection

Mechanical Data

- ◆ Case: Transfer molded plastic
- ◆ Epoxy: UL94V-0 rate flame retardant
- ◆ Lead: Solder plated, solderable per MIL-STD-750 method 2026
- ◆ Polarity: Color band denotes cathode end

DO-214AC (SMA)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%

PARAMETER	SYMBOL	SS 52A	SS 53A	SS 54A	SS 55A	SS 56A	SS 58A	SS 59A	SS 510A	UNIT
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	$I_{(AV)}$	5.0								Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	120								Amps
Maximum instantaneous forward voltage at 5.0A(NOTE 1)	V_F	0.55		0.70		0.85				VOLTS
Maximum DC Reverse Current at Rated DC blocking voltage	I_R	$T_A=25^\circ C$								mA
		0.5								
Typical Thermal Resistance (NOTE 2)	$R_{\theta JA}$	$T_A=100^\circ C$								$^\circ C/W$
		20.0				10.0				
Typical Thermal Resistance (NOTE 2)	$R_{\theta JL}$	55								$^\circ C/W$
		12								
Operating Junction Temperature	T_J	-55 to +125								$^\circ C$
Storage Temperature Rang	T_{STG}	-55 to +150								$^\circ C$

Note: 1. Pulse test: 300 μ s pulse width, 1% duty cycle

2. PCB mounted with 0.55" \times 0.55" (14mm \times 14mm) copper pads

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RATING AND CHARACTERISTIC CURVES SS52A THRU SS510A

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

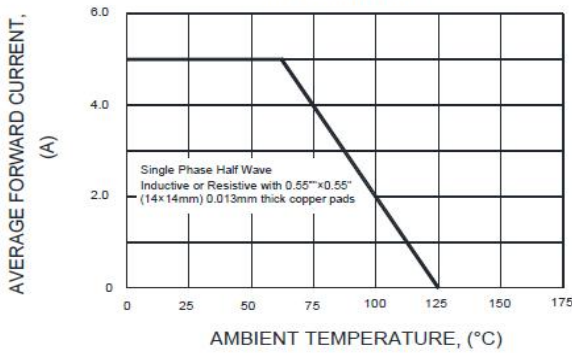


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

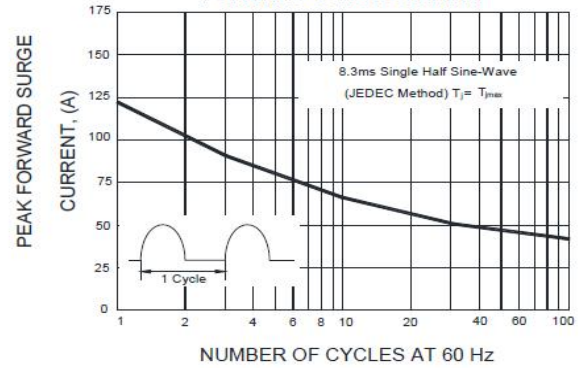


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

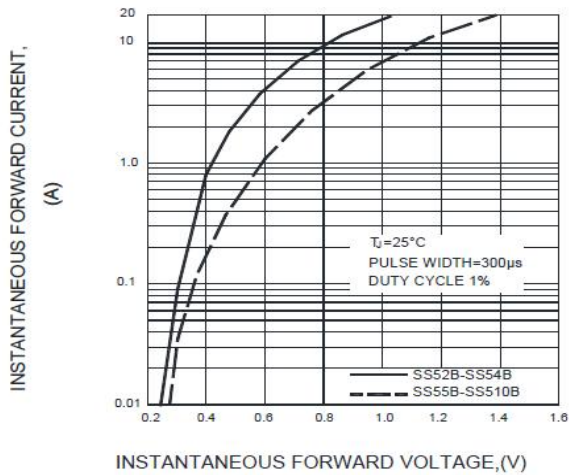


FIG.4-TYPICAL REVERSE CHARACTERISTICS

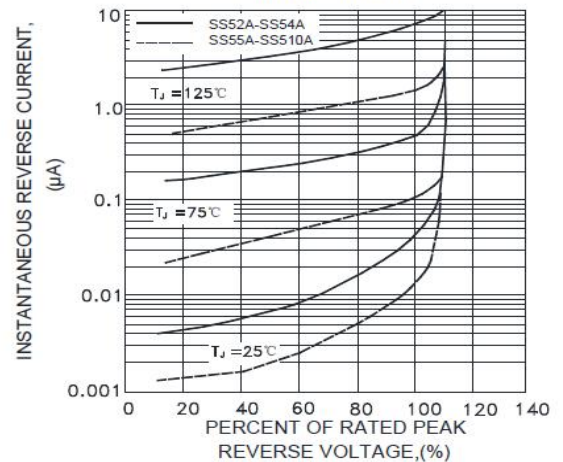
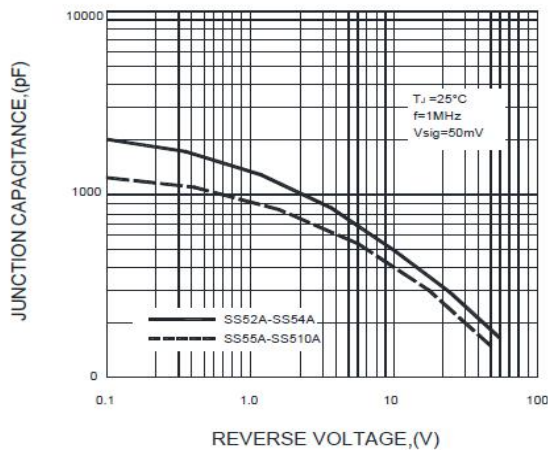


FIG.5-TYPICAL JUNCTION CAPACITANCE



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.