

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

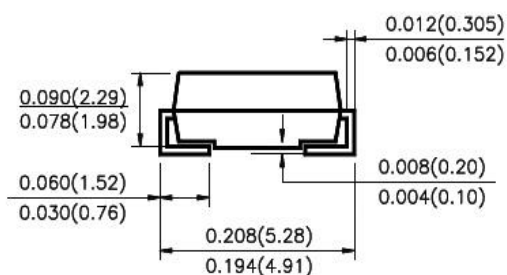
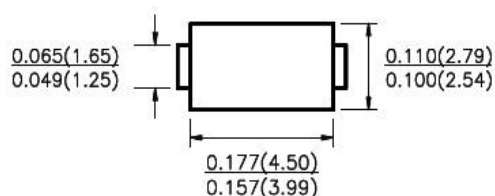
Mechanical Data

- ◆ 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	T _A =25℃	I _R	0.5								mA
	T _A =100℃		20.0			10.0					
Typical Thermal Resistance (NOTE 2)		R _{θJA}	55								℃/W
		R _{θJL}	12								
Operating Junction Temperature		T _J	-55 to +125								℃
Storage Temperature Rang		T _{STG}	-55 to +150								℃

Note: 1. Pulse test: 300 μ s pulse width, 1% duty cycle2. 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

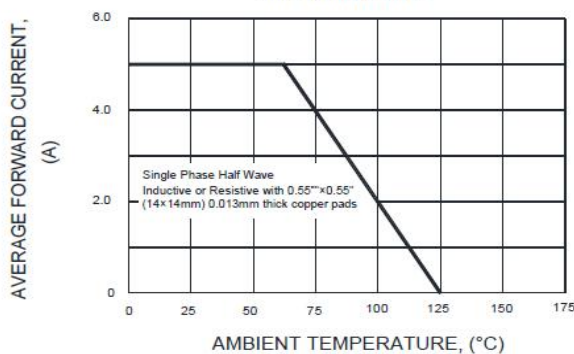


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

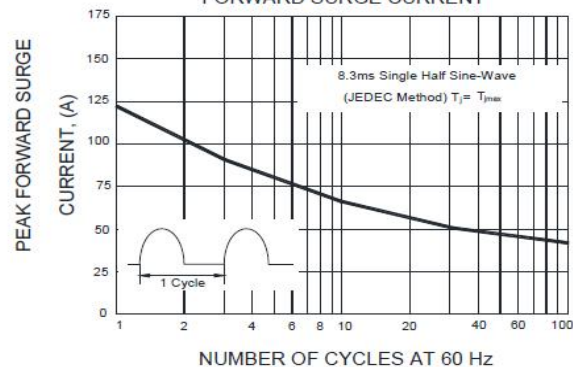


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

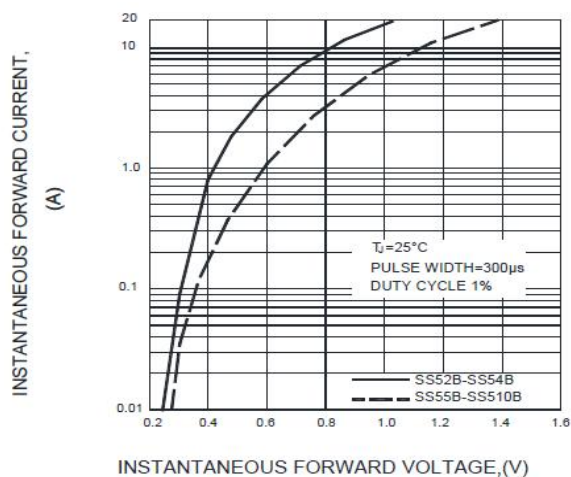


FIG.4-TYPICAL REVERSE CHARACTERISTICS

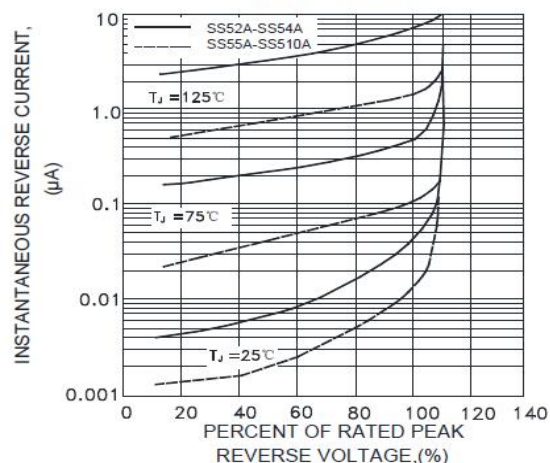
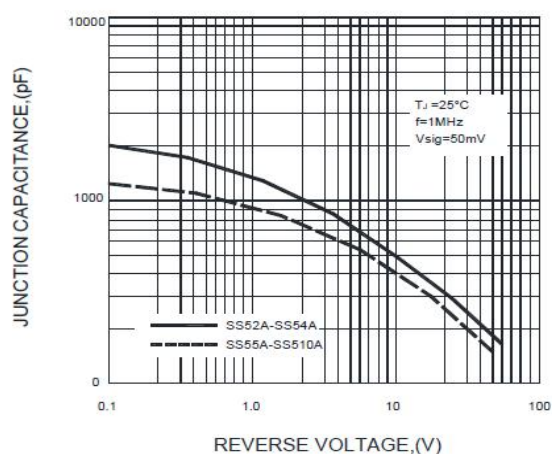


FIG.5-TYPICAL JUNCTION CAPACITANCE



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