



SS52F THRU SS520F

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER



FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- High current capacity
- Built-in strain relief
- Low profile package
- Metal to silicon rectifier, majority carrier conduction
- High surge capacity
- Low power loss, high efficiency
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering : 260°C /10 seconds at terminals

MECHANICAL DATA

Case: Molded plastic, SMAFL

Terminals: Pure tin plated, lead free

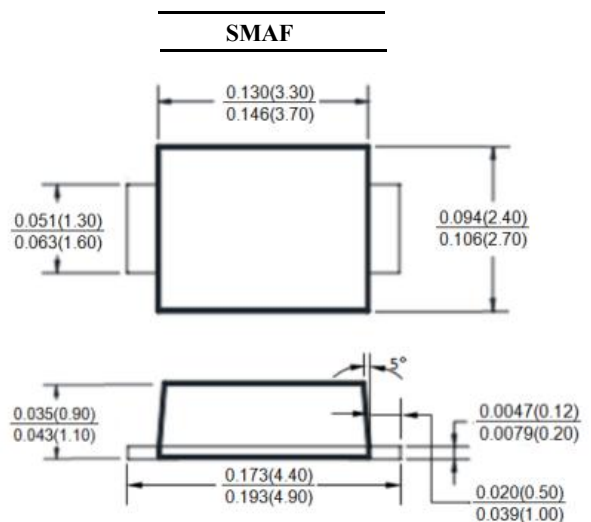
Polarity: Indicated by cathode band

Packaging: 12mm tape per EIA STD RS-481

Weight: 0.025 gram

REVERSE VOLTAGE: 20 to 200 VOLTS

FORWARD CURRENT: 5.0 AMPERE



Dimensions in inches and (millimeters)

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, derate current by 20%.

	Symbols	SS52F	SS53F	SS54F	SS55F	SS56F	SS58F	SS59F	SS510F	SS515F	SS520F	Units
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	80	90	100	150	200	Volts
Maximum RMS Voltage	V _{RMS}	14	21	28	35	42	56	63	70	105	140	Volts
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	80	90	100	150	200	Volts
Maximum Average Forward Rectified Current	I _(AV)	5.0										Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	120										Amp
Maximum Forward Voltage at 5.0A (Note 1)	V _F	0.55			0.75		0.85			0.95		Volts
Maximum Reverse Current at T _A =25℃ at Rated DC Blocking Voltage T _A =100℃	I _R	0.5 20										mAmp
Typical Junction Capacitance (Note 3)	C _j	200										pF
Typical Thermal Resistance (Note 2)	R _{θJA}	50										℃/W
Operating Junction Temperature Range	T _J	-65 to +125					-65 to +150					℃
Storage Temperature Range	T _{stg}	-65 to +150										℃

NOTES: 1- Pulse test: 300μs pulse width, 1% duty cycle

2- P.C.B. mounted with 0.2 x 0.2" (5.0 x 5.0mm) Copper Pad Areas

3- Measured at 1MHz and Applied Reverse Voltage of 4.0V D.C.

RATINGS AND CHARACTERISTIC CURVES

FIG. 1 FORWARD CURRENT DERATING CURVE

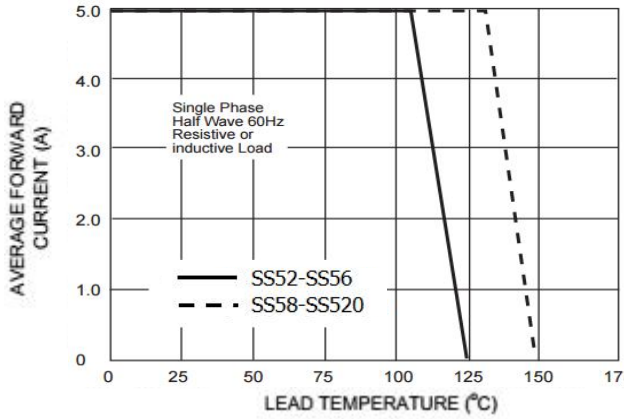


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



FIG. 3 TYPICAL FORWARD CHARACTERISTICS

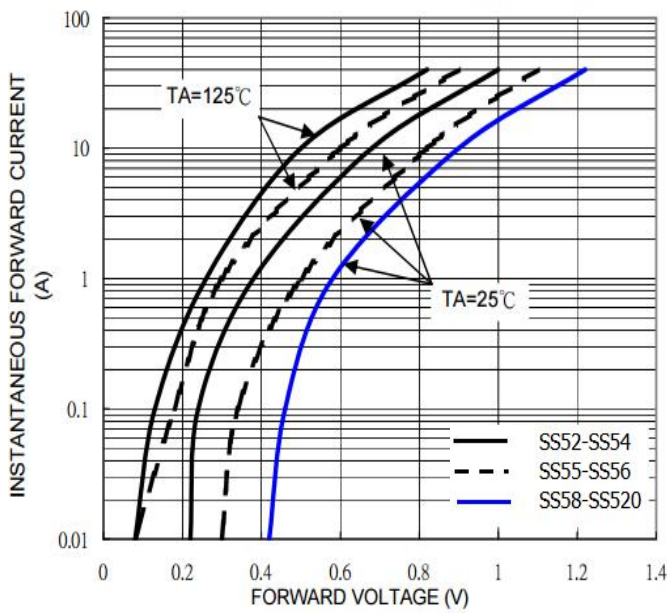


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

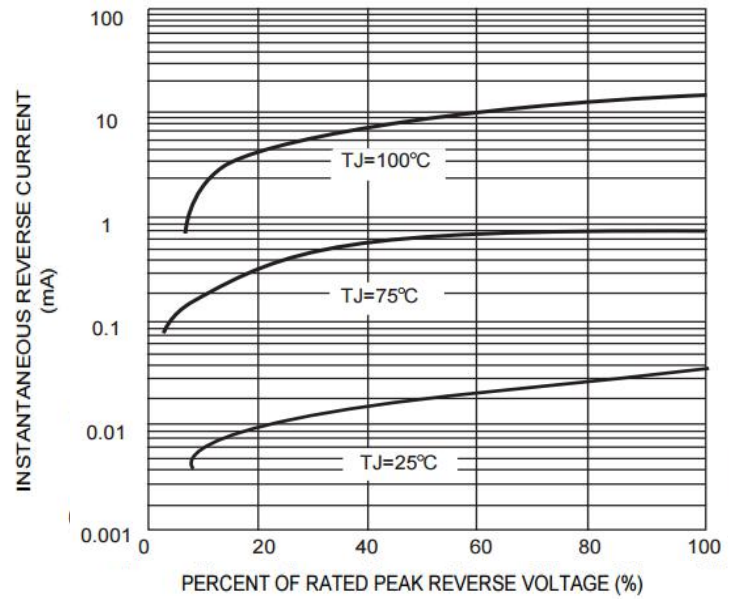


FIG. 5-TYPICAL JUNCTION CAPACITANCE

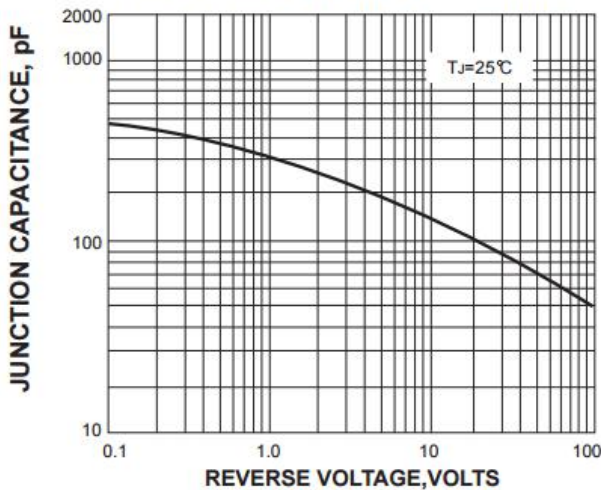


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

