



SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

SS12L THRU SS115L

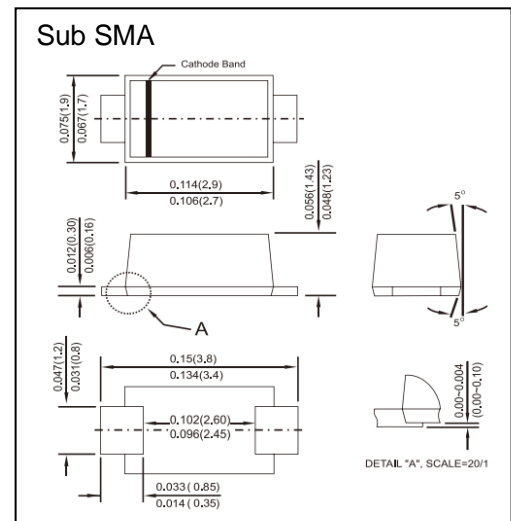
VOLTAGE RANGE **20 to 150 Volts**
CURRENT **1.0 Ampere**

FEATURES

- Low profile surface mount package
- Built-in strain relief
- High switching speed
- Low voltage drop, high efficiency Epitaxial construction
- High current capability, low VF

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Solder plated, solderable per MIL-STD-750 method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.0196 gram



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	SS 12L	SS 13L	SS 14L	SS 15L	SS 16L	SS 19L	SS 110L	SS 115L	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	90	100	150	Volts
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	63	70	105	Volts
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	90	100	150	Volts
Maximum Average Forward Rectified Current	$I_{(AV)}$	1.0								Amp
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30								Amps
Maximum Instantaneous Forward Voltage	@0.5A	0.385	0.43	0.51	0.58			0.70	0.75	Volts
	@1.0A	0.45	0.50	0.55	0.70			0.80	0.90	
Maximum DC Reverse Current at rated DC Blocking Voltage	$T_A = 25^\circ\text{C}$	0.4						0.05		mA
	$T_A = 125^\circ\text{C}$	0.5								
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	45								$^\circ\text{C/W}$
	$R_{\theta JA}$	100								$^\circ\text{C/W}$
Operating Temperature Range	T_J	-55 to +150								$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150								$^\circ\text{C}$

Notes:

1. Pulse test: 300 μ s pulse width, 1% duty cycle
2. PCB mounted with 0.2" \times 0.2" (5mm \times 5mm) copper pads



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RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

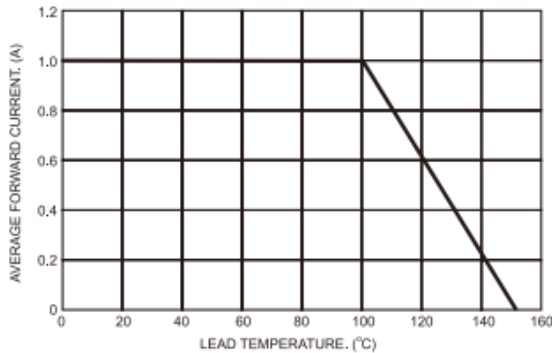


FIG.2- MAXIMUM REPETITIVE FORWARD SURGE CURRENT

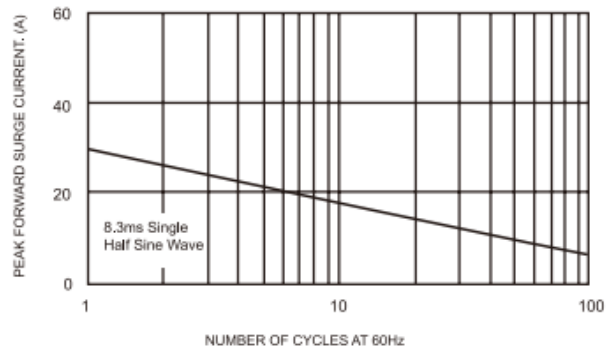


FIG.3- TYPICAL FORWARD CHARACTERISTICS

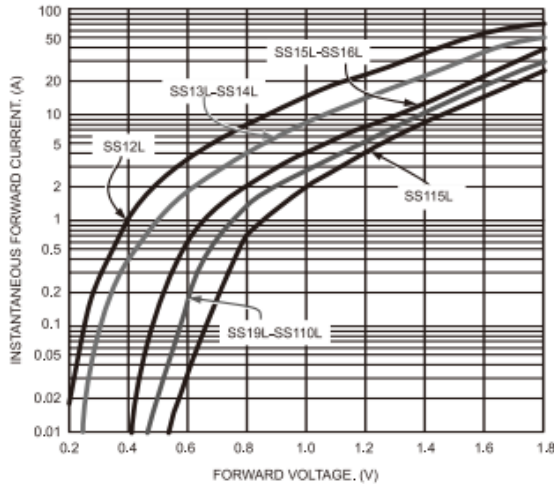


FIG.4- TYPICAL REVERSE CHARACTERISTICS

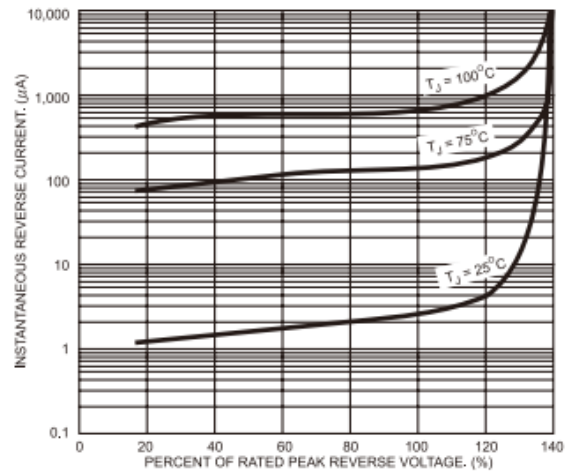


FIG.5- TYPICAL JUNCTION CAPACITANCE

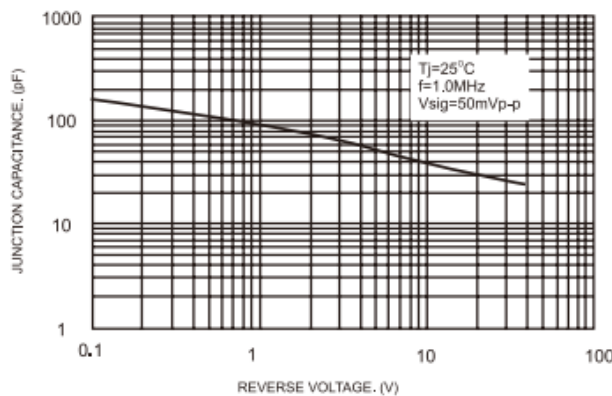


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS

