

# Schottky Barrier Rectifiers

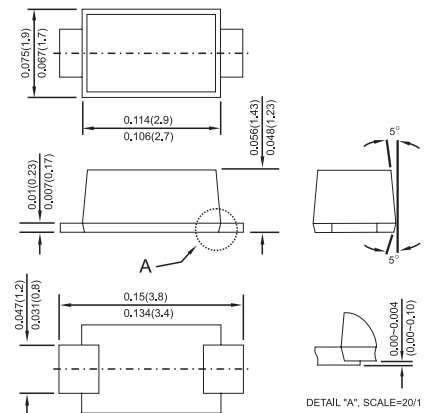
## PRODUCT SUMMARY

1.0 Amp. Surface Mount

## FEATURES

- For surface mounted application
- Low-Profile Package
- Ideal for automated pick & place
- Low power loss, high efficiency
- High current capability, low VF
- High surge current capability
- Plastic material used carriers Underwriters
- Laboratory Classification 94V-0
- Epitaxial construction
- High temperature soldering: 260 °C / 10 seconds at terminals

### Sub SMA



## MECHANICAL DATA

- Cases: Sub SMA plastic case
- Terminal : Pure tin plated, lead free.
- Polarity: Color band denotes cathode end
- Packaging: 12mm tape per EIA STD RS-481
- Weight approx. 15mg

Dimensions in inches and (millimeters)

 **Pb-free; RoHS-compliant**

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, de-rate current by 20%

Type Number	Symbol	SS 12L	SS 13L	SS 14L	SS 15L	SS 16L	SS 19L	SS 110L	SS 115L	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	90	100	150	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	63	70	105	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	90	100	150	V
Marking Code (Note 2)		12LYM	13LYM	14LYM	15LYM	16LYM	19LYM	10LYM	A5LYM	
Maximum Average Forward Rectified Current	$I_{(AV)}$	1.0								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	$I_{FSM}$	30								A
Maximum Instantaneous Forward Voltage (Note 1) @ 0.5A @ 1.0A	$V_F$	0.385 0.45	0.43 0.50	0.51 0.55	0.58 0.70		0.65 0.80		0.75 0.90	V
Maximum DC Reverse Current @ $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	$I_R$	0.4					0.05			mA mA
		8.0	6.0				0.5			
Maximum Thermal Resistance (Note 3)	$R_{\theta JA}$	100								$^\circ\text{C/W}$
	$R_{\theta JL}$	45								
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 with PW=300 usec, 1% Duty Cycle.
  2. 12LYM: 1-1A, 2-20V, L-Low Profile, Y-Year Code, M-Month Code.
  3. Measured on P.C.Board with 0.2" x 0.2" (5.0mm x 5.0mm) Copper Pad Areas.

## RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

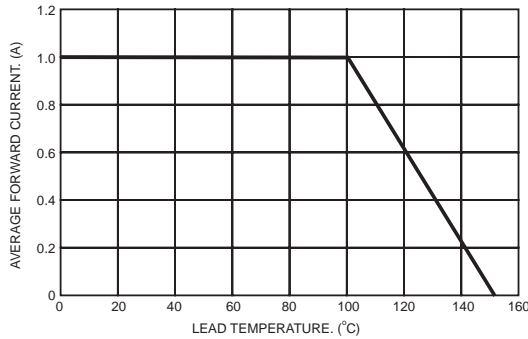


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

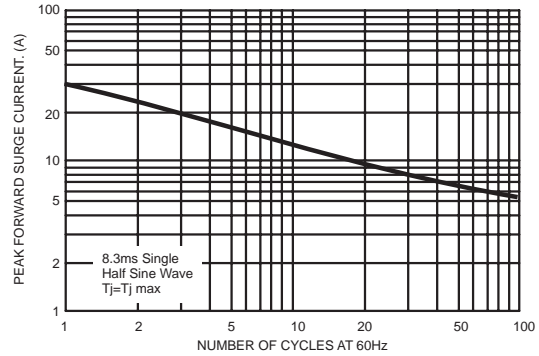


FIG.3- TYPICAL FORWARD CHARACTERISTICS

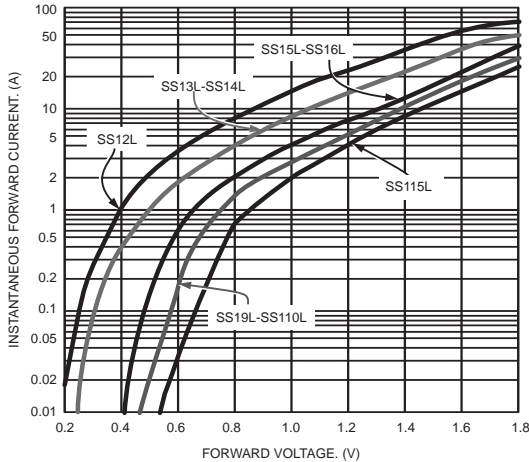


FIG.4- TYPICAL REVERSE CHARACTERISTICS

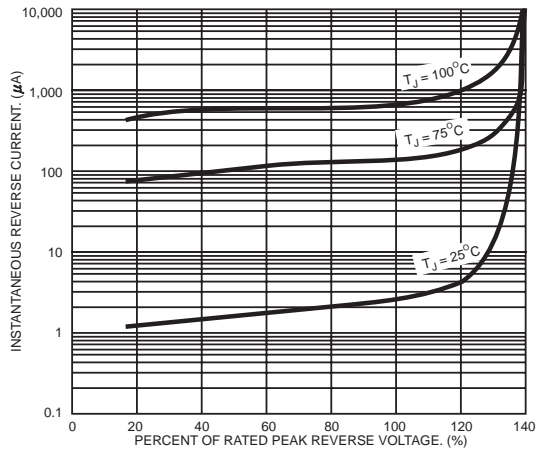


FIG.5- TYPICAL JUNCTION CAPACITANCE

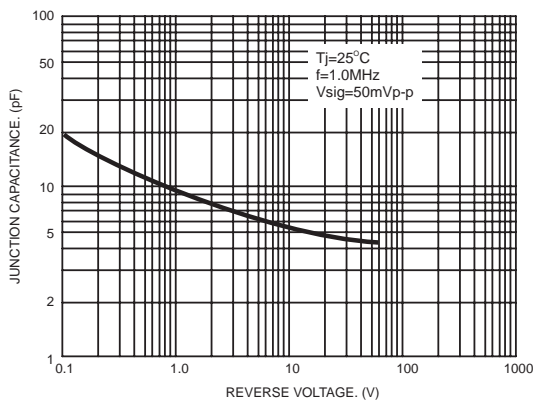
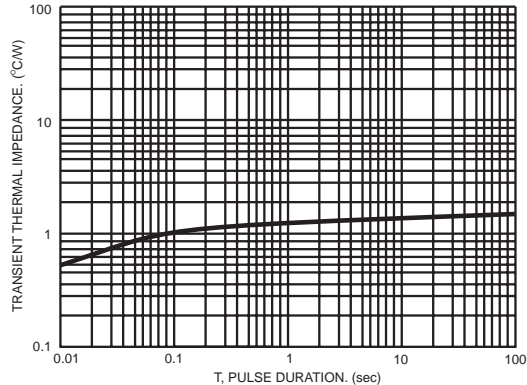


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS



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