

Small Signal Product

## Surface Mount Schottky Barrier Rectifiers

### FEATURES

- Plastic package has carries underwriters
- Ideal for automated placement
- Surge overload rating to 25 Amperes peak
- Reliable low cost construction utilizing molded plastic technique results in in-expensive product
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Terminal : Pure tin plated, lead free
- Weight : 0.12 grams



MELF



### MECHANICAL DATA

- Polarity: Indicated by blue cathode band

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)							
PARAMETER	SYMBOL	LSR102	LSR103	LSR104	LSR105	LSR106	UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	50	60	V
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	35	42	V
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	50	60	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	1					A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	25					A
Maximum instantaneous forward voltage (Note 1) @ 1 A	V <sub>F</sub>	0.55			0.70		V
Maximum reverse current @ rated VR	I <sub>R</sub>	1			10		mA
		T <sub>J</sub> =25 °C			T <sub>J</sub> =125 °C		
Typical junction capacitance (Note 2)	C <sub>j</sub>	110			80		pF
Typical thermal resistance	R <sub>θJA</sub>	80					°C/W
Operating junction temperature range	T <sub>J</sub>	-65 to +125			-65 to +150		°C
Storage temperature range	T <sub>STG</sub>	- 65 to +150					°C

Note 1: Pulse test with PW=300μs, 1% duty cycle

Note 2: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

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RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

Fig.1 Maximum Forward Current Derating Curve

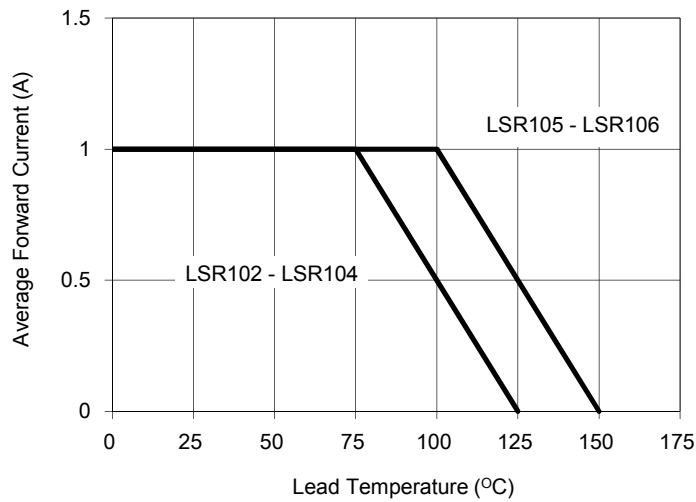


Fig.2 Maximum Non-Repetitive Forward Surge Current

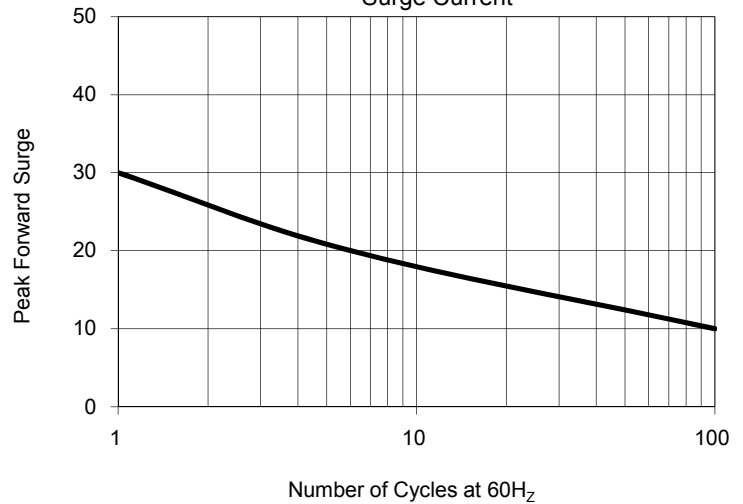


Fig.3 Typical Forward Characteristics

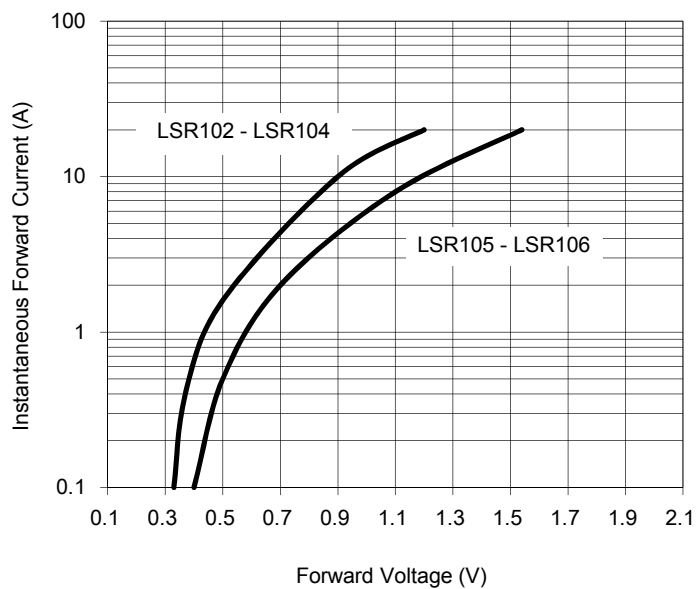


Fig.4 Typical Reverse Characteristics

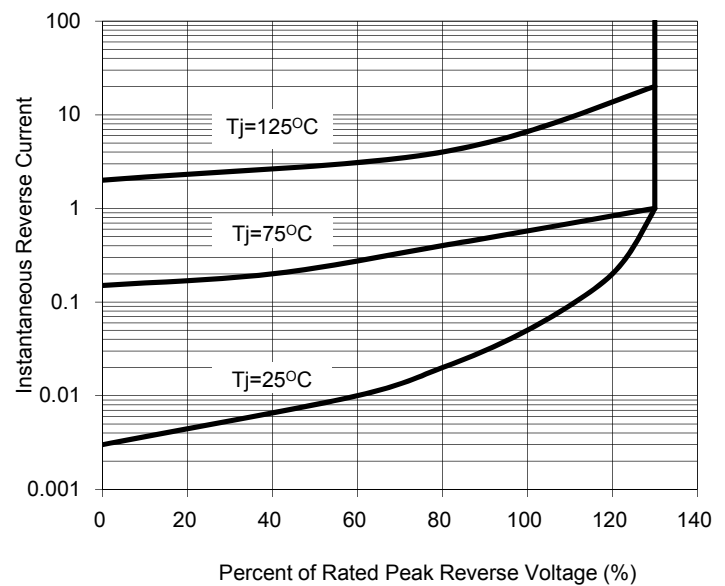


Fig.5 Typical Junction Capacitance

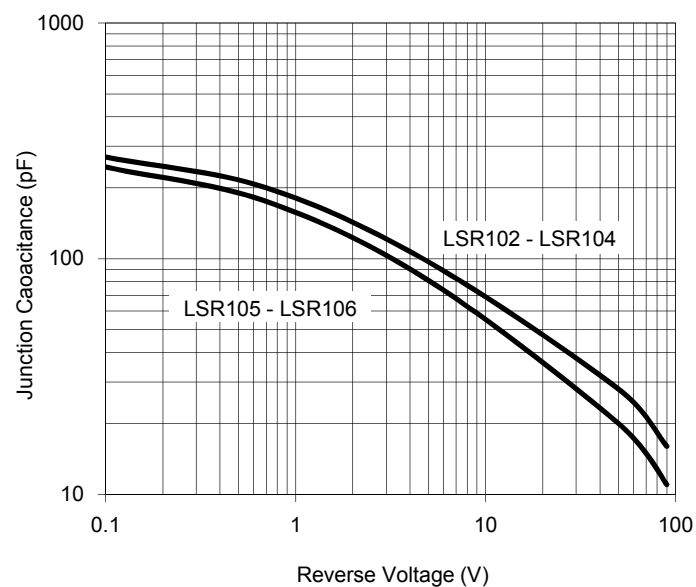
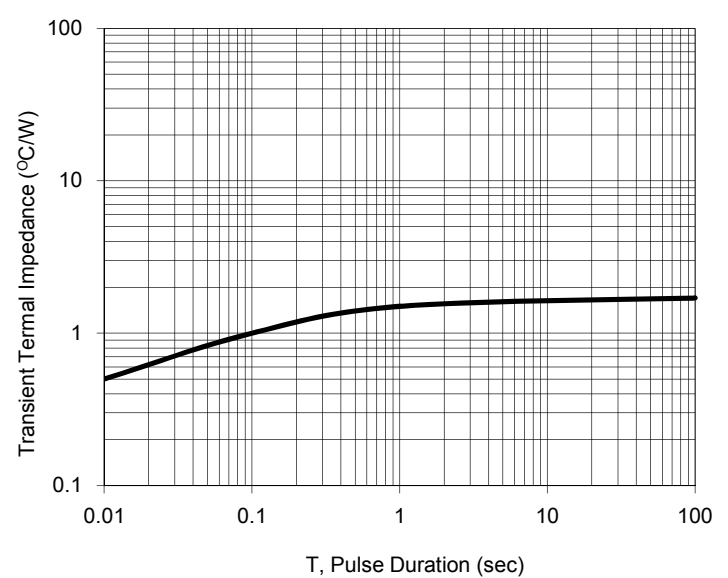


Fig.6 Typical Transient Thermal Characteristics



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ORDERING INFORMATION				
PART NO.	PART NO. SUFFIX (Note 2)	PACKING CODE	PACKAGE	PACKING
LSR10x (Note 1)	-xx	L0	MELF	5K / 13" Reel

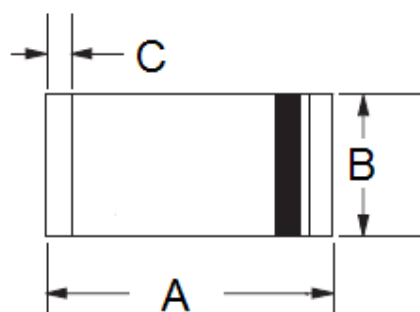
Note 1: "x" defines voltage from 20V (LSR102) to 60V (LSR106)

Note 2: Part No. Suffix „-xx “ would be used for special requirement

EXAMPLE				
PREFERRED P/N	PART NO.	PART NO. SUFFIX	PACKING CODE	DESCRIPTION
LSR102 L0	LSR102		L0	Multiple manufacture source
LSR102-J0 L0	LSR102	-J0	L0	Define manufacture source

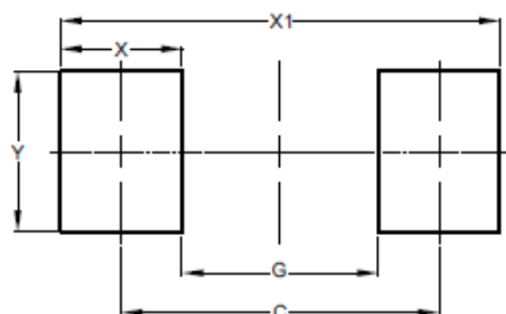
PACKAGE OUTLINE DIMENSIONS

**MELF**



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	4.80	5.50	0.189	0.217
B	2.25	2.67	0.089	0.105
C	0.30	0.60	0.012	0.024

SUGGEST PAD LAYOUT



DIM.	Unit (mm)	Unit (inch)
	Typ.	Typ.
C	4.80	0.189
G	3.30	0.130
X	1.50	0.059
X1	6.30	0.248
Y	2.70	0.106

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