

## 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
- High temperature soldering :  
260°C/10 seconds at terminals
- Mounting position : Any
- Weight : 0.12 g
- Packing code with suffix "G" means  
Green compound (Halogen free)


**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	LL5817	LL5818	LL5819	UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	V
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	V
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	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 @ 3 A	V <sub>F</sub>	0.450 0.750	0.550 0.875	0.600 0.900	V
Maximum reverse current @ rated VR T <sub>J</sub> =25 °C T <sub>J</sub> =100 °C	I <sub>R</sub>	0.5 5			mA
Typical junction capacitance (Note 2)	C <sub>j</sub>	110			pF
Typical thermal resistance	R <sub>θJA</sub>	80			°C/W
Operating junction temperature range	T <sub>J</sub>	- 65 to +125			°C
Storage temperature range	T <sub>STG</sub>	- 65 to +125			°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

( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

Fig.1 Maximum Forward Current Derating Curve

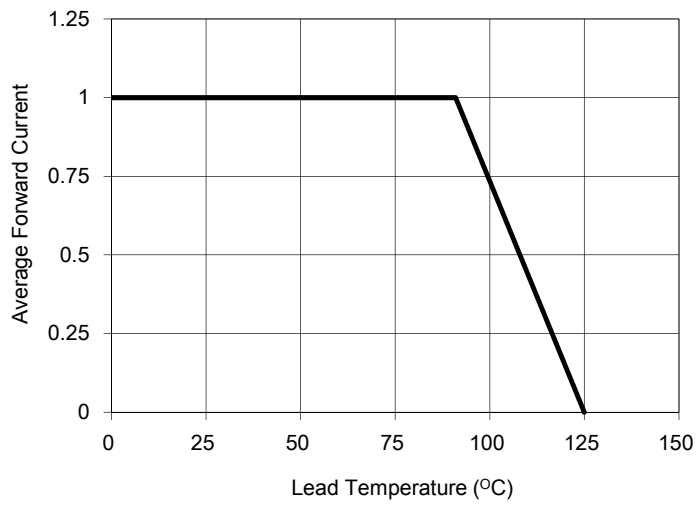


Fig.2 Maximum Non-Repetitive Forward Surge Current

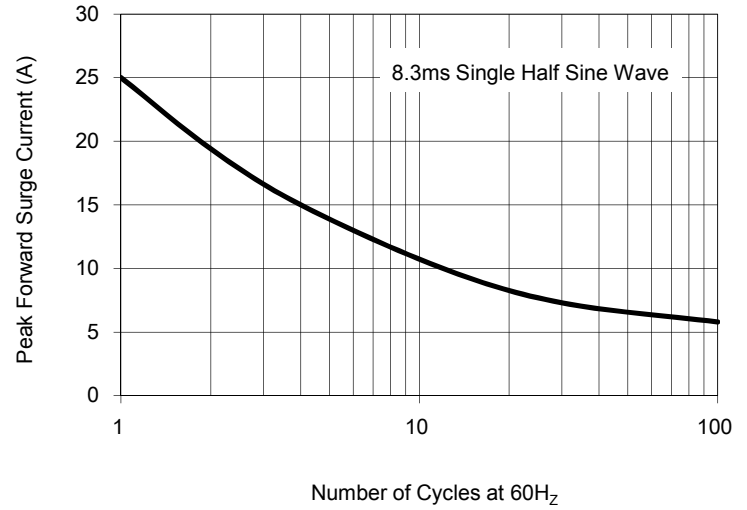


Fig.3 Typical Forward Characteristics

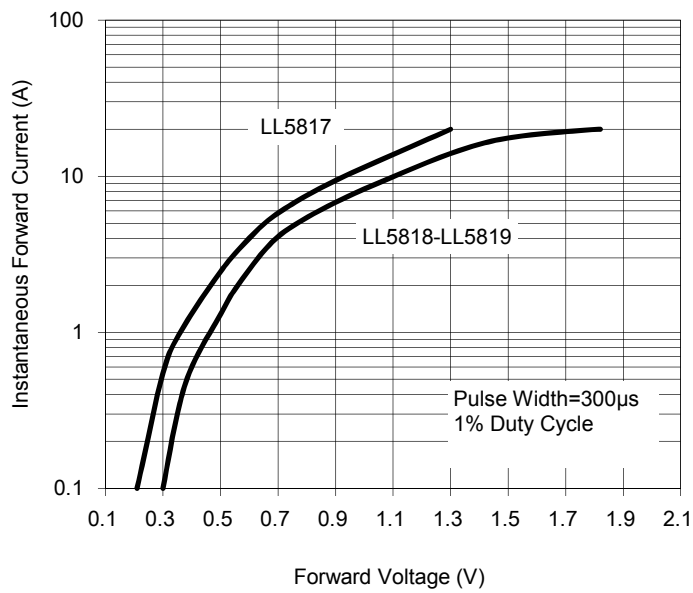


Fig.4 Typical Reverse Characteristics

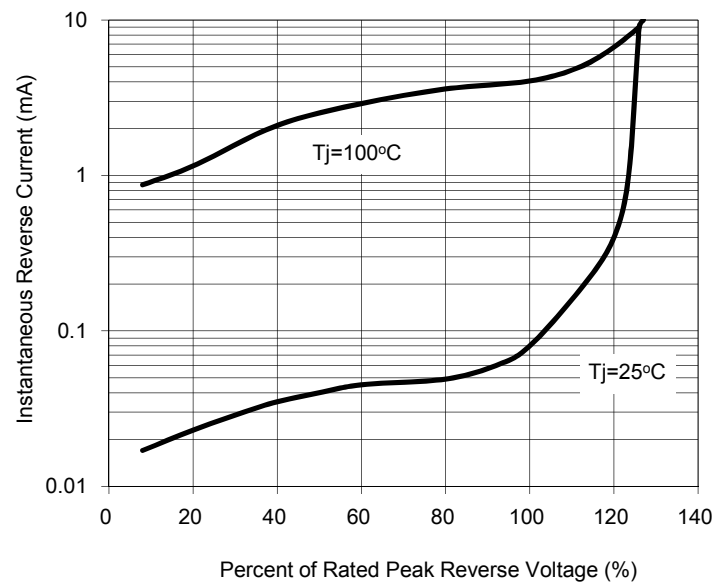


Fig.5 Typical Junction Capacitance

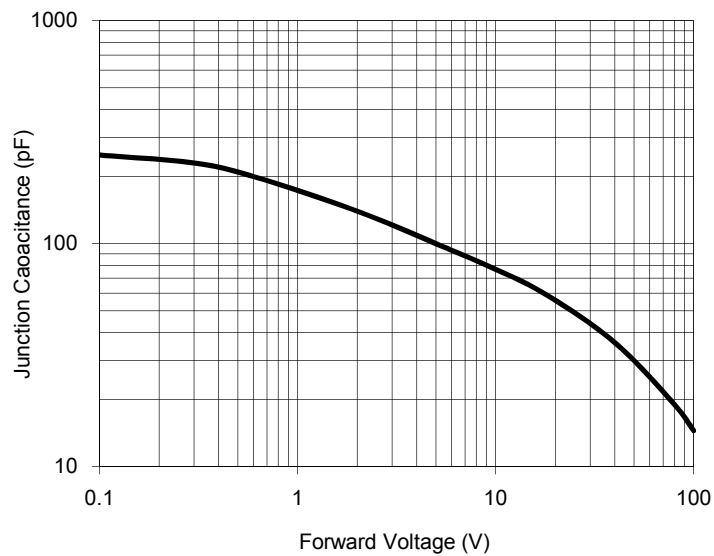
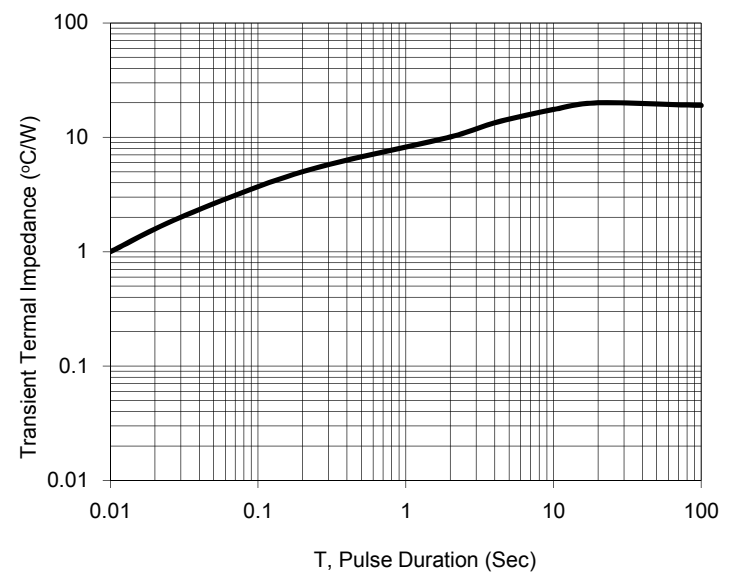


Fig.6 Typical Transient Thermal Characteristics



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ORDERING INFORMATION					
PART NO.	PART NO. SUFFIX (Note 2)	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
LL581x (Note 1)	-xx	L0	G	MELF	5,000 / 13" Reel

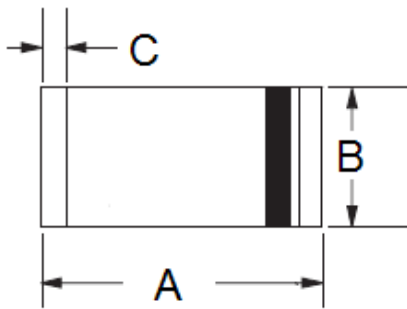
Note 1: "x" defines voltage from 20V (LL5817) to 40V (LL5819)

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

EXAMPLE					
PREFERRED P/N	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
LL5817 L0	LL5817		L0		Multiple manufacturer sources
LL5817-J0 L0	LL5817	-J0	L0	G	Defined manufacturer source, Green compound

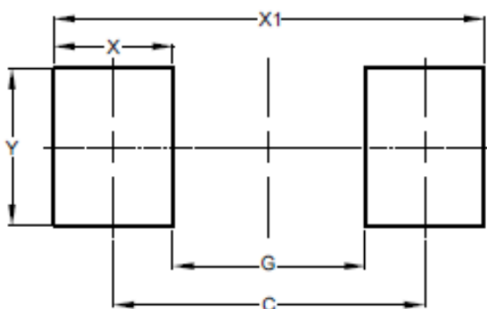
PACKAGE OUTLINE DIMENSIONS

**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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