

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


**MELF**


### MECHANICAL DATA

- Polarity: Indicated by blue cathode band

<b>MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS</b> ( $T_A=25^\circ\text{C}$ unless otherwise noted)					
<b>PARAMETER</b>	<b>SYMBOL</b>	<b>LL5817</b>	<b>LL5818</b>	<b>LL5819</b>	<b>UNIT</b>
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	V
Maximum RMS voltage	$V_{RMS}$	14	21	28	V
Maximum DC blocking voltage	$V_{DC}$	20	30	40	V
Maximum average forward rectified current	$I_{F(AV)}$	1			A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	$I_{FSM}$	25			A
Maximum instantaneous forward voltage (Note 1) @ 1 A @ 3 A	$V_F$	0.450 0.750	0.550 0.875	0.600 0.900	V
Maximum reverse current @ rated VR $T_J=25^\circ\text{C}$ $T_J=100^\circ\text{C}$	$I_R$	0.5 5			mA
Typical junction capacitance (Note 2)	$C_j$	110			pF
Typical thermal resistance	$R_{\theta JA}$	80			$^\circ\text{C/W}$
Operating junction temperature range	$T_J$	- 65 to +125			$^\circ\text{C}$
Storage temperature range	$T_{STG}$	- 65 to +125			$^\circ\text{C}$

 Note 1: Pulse test with  $PW=300\mu\text{s}$ , 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 Curv

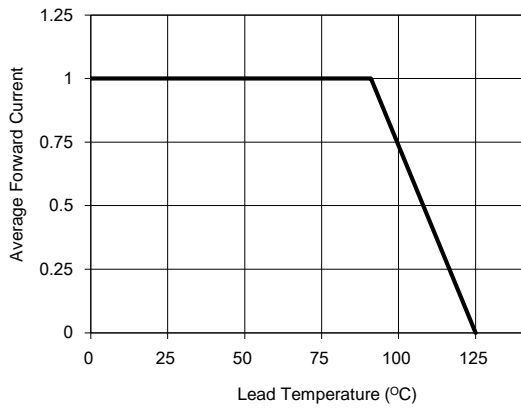


Fig.2 Maximum Non-Repetitive Forward Surge Current

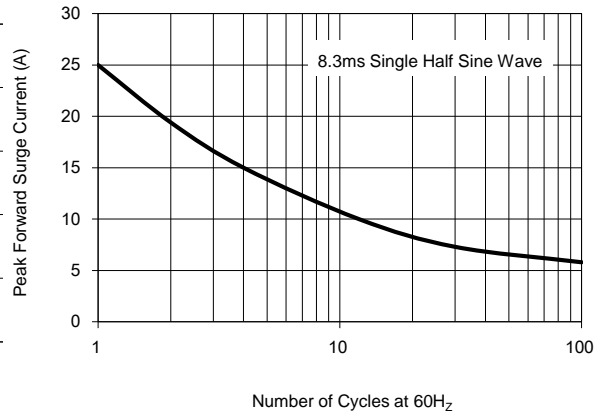


Fig.3 Typical Forward Characteristics

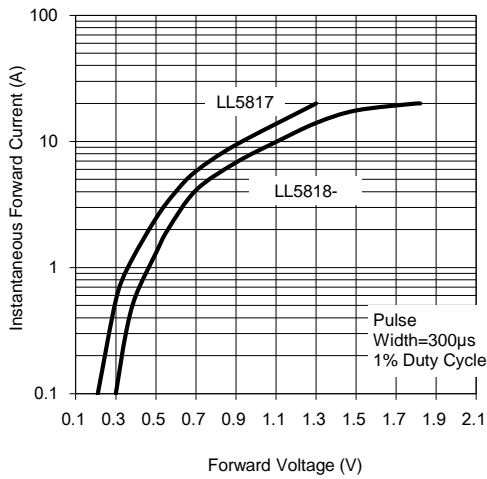


Fig.4 Typical Reverse Characteristics

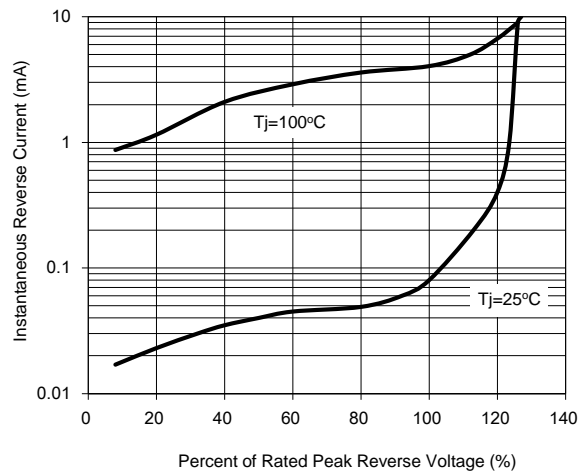


Fig.5 Typical Junction Capacitance

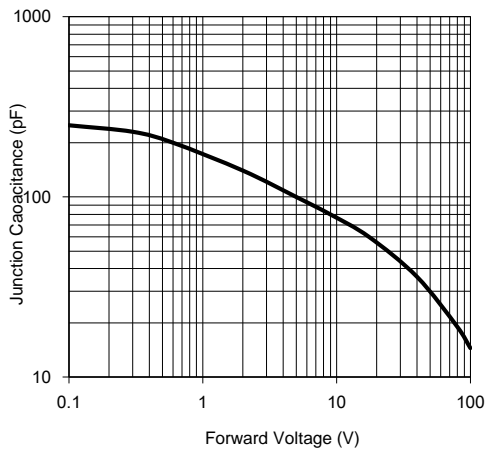
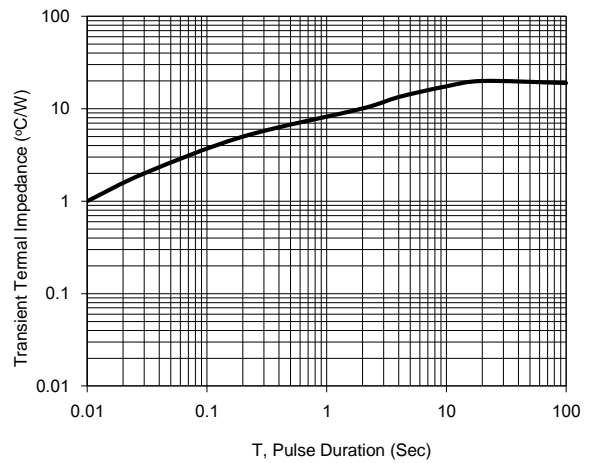


Fig.6 Typical Transient Thermal Characteristics



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

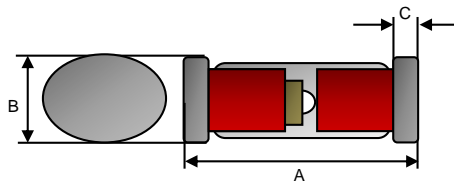
Note 1: "x" defines voltage from 20V (LL5817) to 40V (LL5819)

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

<b>EXAMPLE</b>				
<b>PREFERRED P/N</b>	<b>PART NO.</b>	<b>PART NO. SUFFIX</b>	<b>PACKING CODE</b>	<b>DESCRIPTION</b>
LL5817 L0	LL5817		L0	Multiple manufacturer sources
LL5817-J0 L0		-J0		Defined manufacturer source

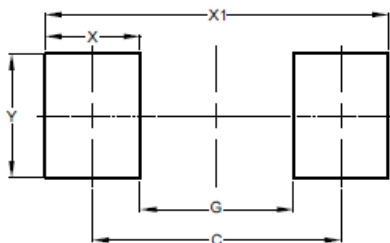
**PACKAGE OUTLINE DIMENSIONS**

**MELF**



Dimensions	Unit (inch)		Unit (mm)	
	Min	Max	Min	Max
A	0.189	0.217	4.800	5.500
B	0.089	0.105	2.250	2.670
C	0.012	0.024	0.300	0.600

**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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