Small Signal Product

Surface Mount Schottky Barrier Rectifiers

FEATURES

- Plastic package has carries underwriters
- Ideal for automated placement
- Surge overload rating to 25 Ampers 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

Pb-Free

RoHS COMPLIANT

MECHANICAL DATA

- Polarity: Indicated by blue cathode band

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)					
PARAMETER	**SYMBOL**	**LL5817**	**LL5818**	**LL5819**	**UNIT**
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 °C T_J=100 °C	I_R	0.5 5			mA
Typical junction capacitance (Note 2)	Cj	110			pF
Typical thermal resistance	$R_{\theta JA}$	80			°C/W
Operating junction temperature range	T_J	- 65 to +125			°C
Storage temperature range	T_{STG}	- 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.

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

Fig.1 Maximum Forward Current Derating Curv

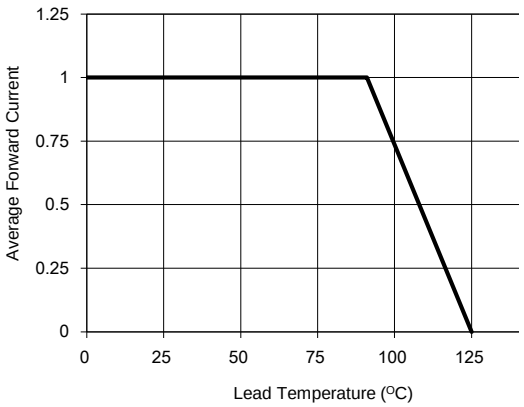


Fig.2 Maximum Non-Repetitive Forward Surge Current

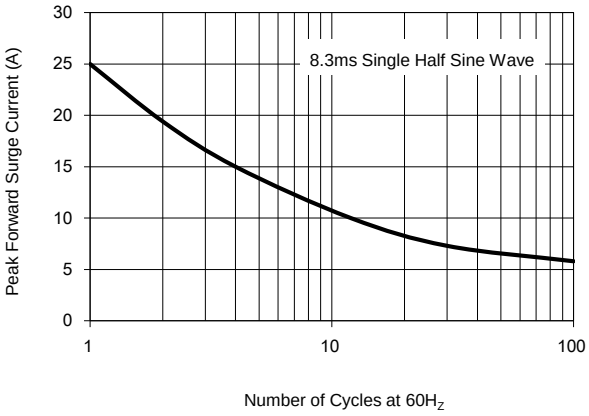


Fig.3 Typical Forward Characteristics

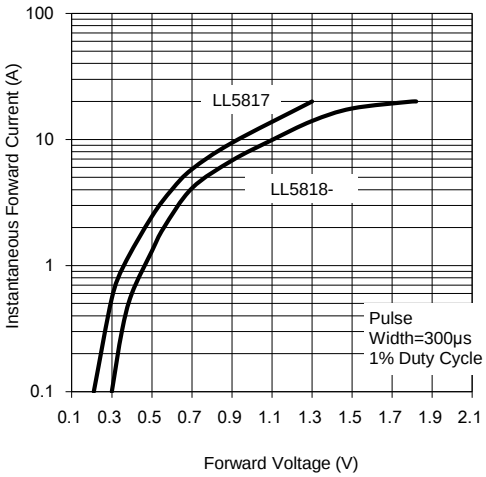


Fig.4 Typical Reverse Characteristics

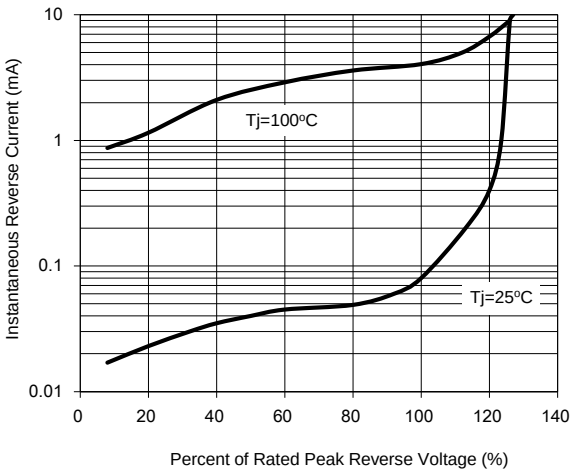


Fig.5 Typical Junction Capacitance

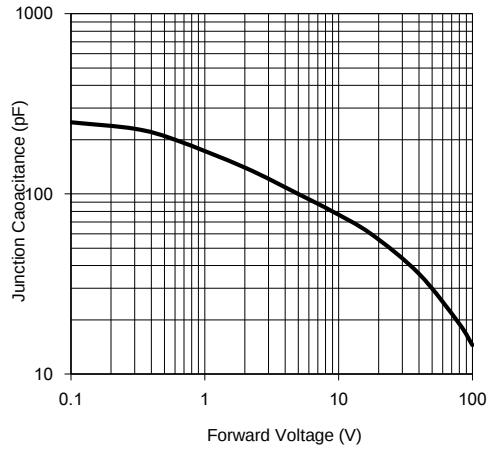
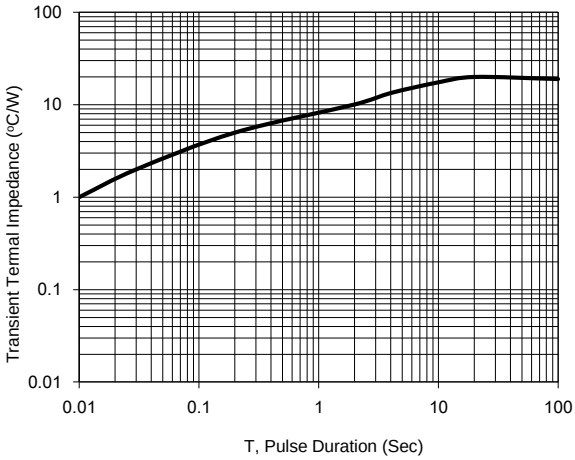


Fig.6 Typical Transient Thermal Characteristics



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

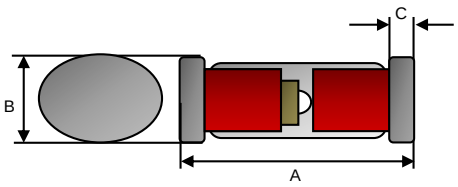
Note 1: "x" defines voltage from 20V (LL5817) to 40V (LL5819)

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

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

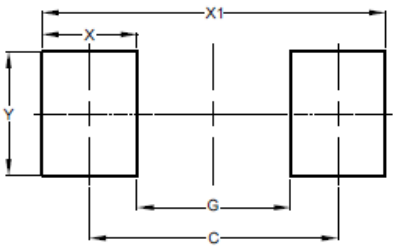
PACKAGE OUTLINE DIMENSIONS

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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