



DONGGUAN NANJING ELECTRONICS LTD.,  
**MINI MELF Glass-Encapsulate Diodes**

## LL60 THRU LL60P

Small Signal Fast Switching Diodes

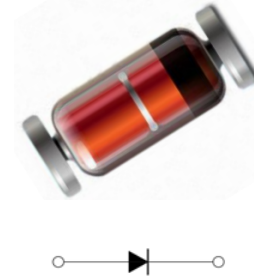
### Features

- High reliability
- Low reverse current and low forward voltage

### Applications

- Low current rectification and high speed switching

MINI MELF(SOD-80/ LL- 34)



### Absolute Maximum Ratings (T<sub>j</sub> =25°C)

Parameter	Test Conditions	Type	Symbol	Value	Unit
Repetitive peak reverse voltage		LL60	VRRM	40	V
		LL60P	VRRM	45	V
Peak forward surge current	tp =1s	LL60	IFSM	150	mA
		LL60P	IFSM	500	mA
Forward continuous current	Ta=25°C	LL60	IF	30	mA
		LL60P	IF	50	mA
Storage temperature range			Tstg	-65~+125	

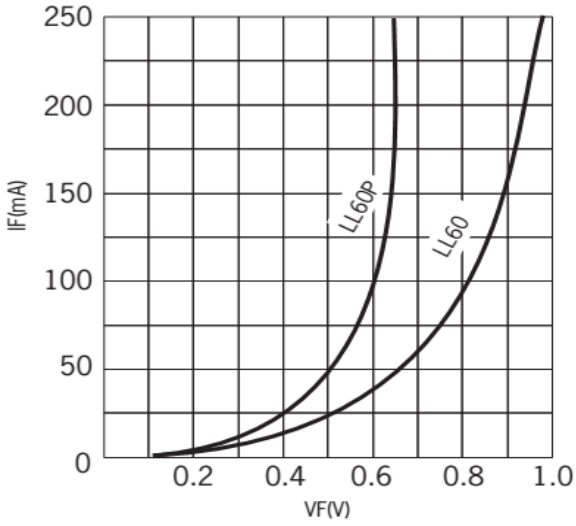
### Maximum Thermal Resistance (T<sub>j</sub> =25°C)

Parameter	Test Conditions	Symbol	Value	Unit
Junction ambient	on PC board 50mm• 50mm• 1.6mm	RthJA	250	K/W

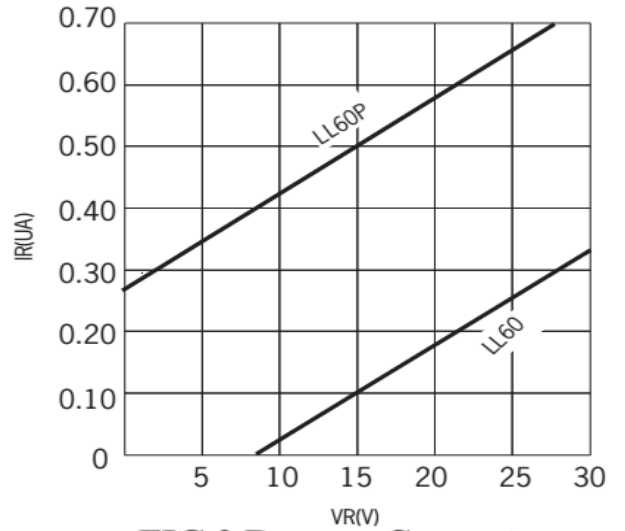
### Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	IF=1mA	LL60	VF		0.32	0.5	V
		LL60P	VF		0.24	0.5	V
	IF=30mA	LL60	VF		0.65	1.0	V
	IF=200mA	LL60P	VF		0.65	1.0	V
Reverse current	VR=15V	LL60	IR		0.1	0.5	uA
		LL60P	IR		0.5	1.0	uA
Junction capacitance	VR=1V, f=1MHz	LL60	CJ		2.0		pF
	VR=10V, f=1MHz	LL60P	CJ		6.0		pF
Reverse recovery time	IF=IR=1mA In=1mA RC=100		v			1.0	ns

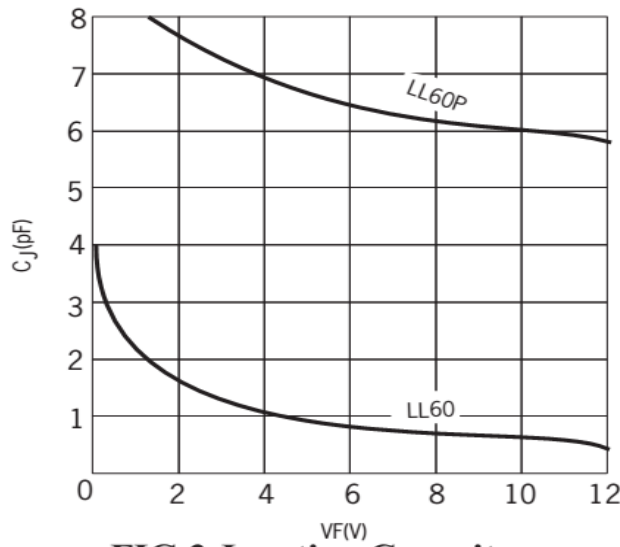
# Typical Characteristics



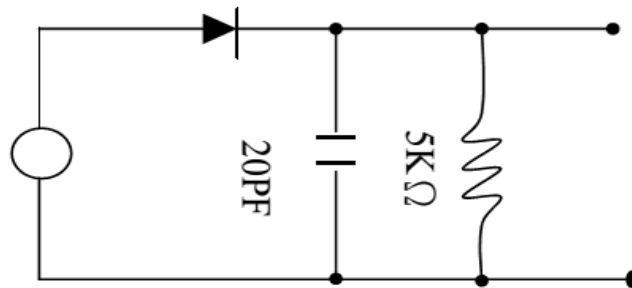
**FIG.1 Forward Current vs. Forward Voltage**



**FIG.2 Reverse Current vs. Continuous Reverse Voltage**



**FIG.3 Junction Capacitance vs. Continuous Reverse Applied Voltage**

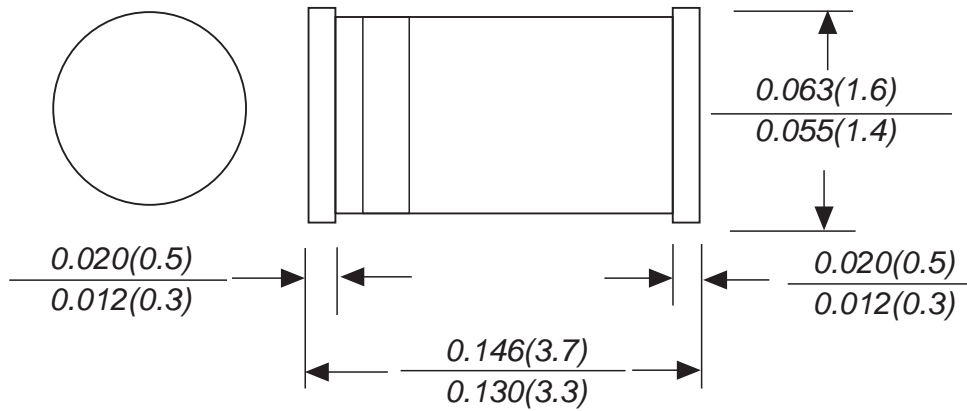


**Input 2Vrms**

**Rectification Efficiency Measurement Circuit**

## MINI MELF Package Outline Dimensions

---

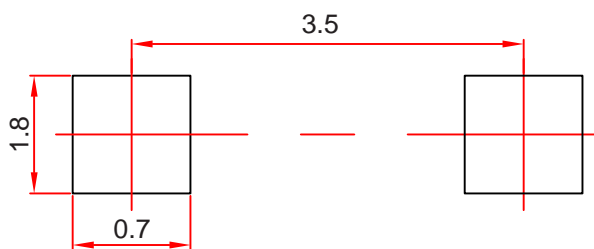


Dimensions in millimeters

---

## MINI MELF Suggested Pad Layout

---



**Note:**

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05$  mm.
3. The pad layout is for reference purposes only.

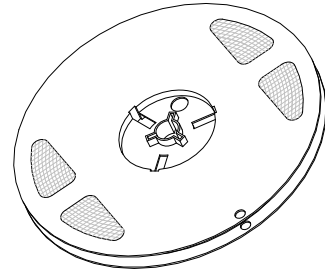
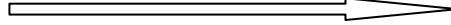
# Packaging Specifications for Surface Mounted Glass Diodes

1. The method of packaging and dimension are shown as below figure. (Dimension in mm)

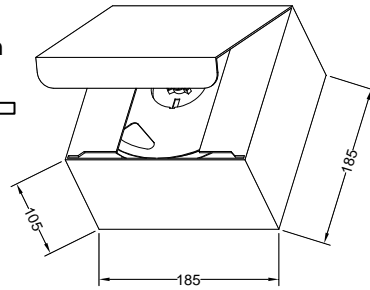
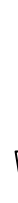
LS-31 (MicroMELF)  
LS-34 (QuadroMELF)  
LL-34 (MiniMELF)  
DO-213AA(MiniMELF)



2,500 pcs per reel



20,000 pcs per box  
8 reels per box



100,000 pcs per carton  
5 boxes per carton

