



SEMICONDUCTOR

LL60, LL60P  
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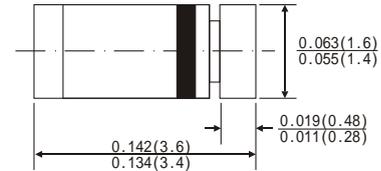
SMALL SIGNAL SCHOTTKY DIODES

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SCHOTTKY DIODES

FEATURES

- Metal-on-silicon junction, majority carrier conduction
- High current capability, Low forward voltage drop
- Extremely low reverse current  $I_r$
- Ultra speed switching characteristics
- Small temperature coefficient of forward characteristics
- Satisfactory Wave detection efficiency
- For use in RECORDER TV RADIO TELEPHONE as detectors,super high speed switching circuits, small current rectifier

Mini-MELF



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: MinMELF glass case (SOD- 80)
- Polarity: color band denotes cathode end
- Weight: Approx. 0.05gram

ABSOLUTE RATINGS(LIMITING VALUES)

Symbols	Parameters	Value		Units
		LL60	LL60P	
V <sub>RRM</sub>	Repetitive Peak Reverse Voltage	20	30	Volts
I <sub>F</sub>	Forward Continuous Current T <sub>A</sub> =25°C	30	50	mA
I <sub>FSM</sub>	Peak Forward Surge Current(t=1S)	150	400	mA
T <sub>STG</sub> /T <sub>J</sub>	Storage and junction Temperature Range	-65 to +125		°C
T <sub>L</sub>	Maximum Lead Temperature for Soldering during 10S at 4mm from Case	230		°C

ELECTRICAL CHARACTERISTICS

Symbols	Parameters	Test Conditions	Value			Units
			Min .	Typ .	Max .	
V <sub>F</sub>	Forward Voltage	I <sub>F</sub> =1mA	LL60	0.35	0.5	Volts
			LL60P	0.26	0.5	
		I <sub>F</sub> =30mA	LL60	0.70	1.0	
			LL60P	0.70	1.0	
I <sub>R</sub>	Reverse Current	V <sub>R</sub> =15V	LL60	1.0	5.0	A
			LL60P	5.0	10.0	
			LL60	4.0		
C <sub>J</sub>	Junction Capacitance	V <sub>R</sub> =1V f=1MHz	LL60	4.0		pF
		V <sub>R</sub> =10V f=1MHz	LL60P	10.0		
	Detection Efficiency(See diagram 4)	V <sub>I</sub> =3V f=30MHz C <sub>L</sub> =10pF R <sub>L</sub> =3.8k		60		
t <sub>rr</sub>	Reverse Recovery time	I <sub>F</sub> =I <sub>R</sub> =1mA I <sub>rr</sub> =1mA R <sub>C</sub> =100			1	ns
R <sub>JA</sub>	Junction Ambient Thermal Resistance	R <sub>JA</sub>		350		°C/W

# RATINGS AND CHARACTERISTIC CURVES LL60

SMALL SIGNAL  
CHOTTKY DIODES

FIG.1-FORWARD CURRENT VERSUS FORWARD VOLTAGE (TYPICAL VALUES)

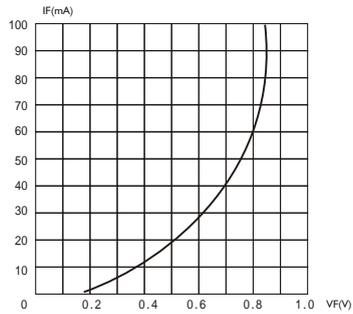


FIG.2-REVERSE CURRENT VERSUS CONTINUOUS REVERSE VOLTAGE

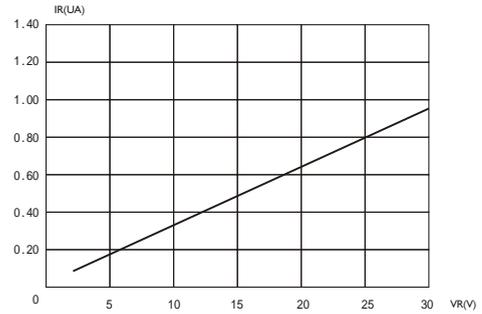


FIG.3-JUNCTION CAPACITANCE VERSUS CONTINUOUS REVERSE APPLIED VOLTAGE

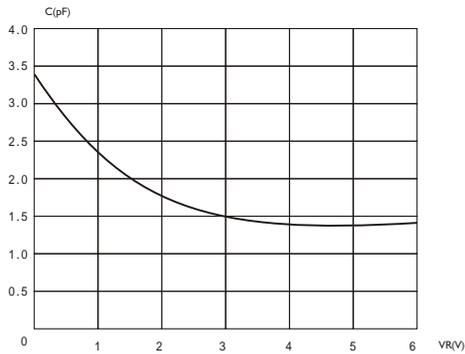
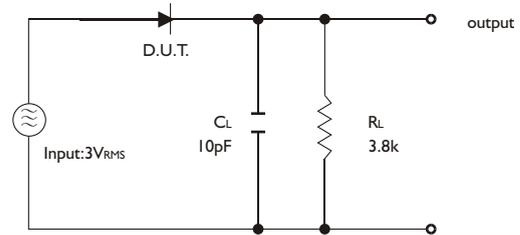


FIG.4-DETECTION EFFICIENCY MEASUREMENT CIRCUIT



# RATINGS AND CHARACTERISTICS CURVES LL60P

SMALL SIGNAL  
CHOTTKY DIODES

FIG.1-FORWARD CURRENT VERSUS FORWARD VOLTAGE (TYPICAL VALUES)

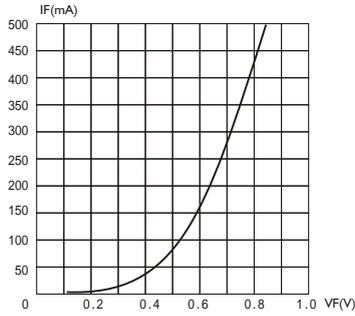


FIG.2-REVERSE CURRENT VERSUS CONTINUOUS REVERSE VOLTAGE

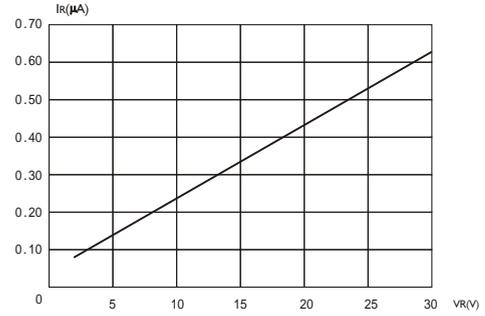


FIG.3-JUNCTION CAPACITANCE VERSUS CONTINUOUS REVERSE APPLIED VOLTAGE

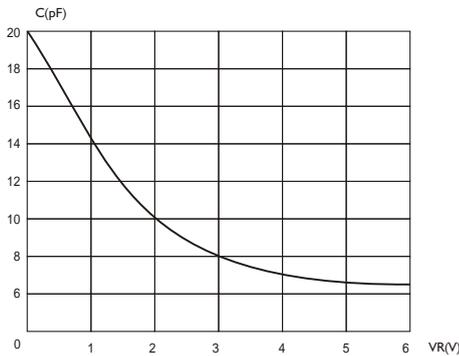


FIG.4-DETECTION EFFICIENCY MEASUREMENT CIRCUIT

