



SEMICONDUCTOR

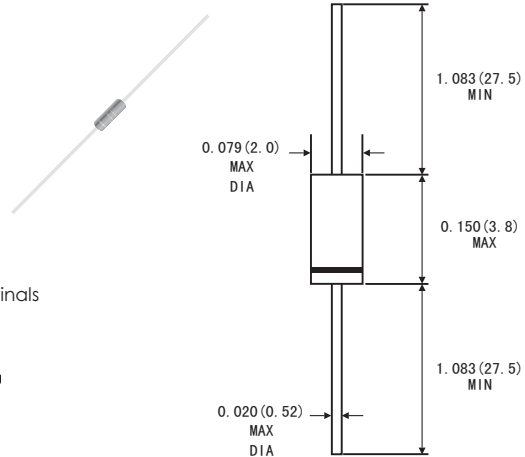
1N60, 1N60P

SMALL SIGNAL 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 and telephone as detectors
- Super high speed switching circuits, small current rectifier
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU

DO-35



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: DO-35 glass case
- Polarity: color band denotes cathode end
- Weight: Approx. 0.13 gram

ABSOLUTE RATINGS (LIMITING VALUES)

Symbols	Parameters	Value		Units
		1N60	1N60P	
V_{RRM}	Repetitive Peak Reverse Voltage	40	40	Volts
I_F	Forward Continuous Current $T_A=25^\circ\text{C}$	30	50	mA
I_{FSM}	Peak Forward Surge Current ($t=1\text{s}$)	150	400	mA
T_{STG}/T_J	Storage and junction Temperature Range	-55 to +125		$^\circ\text{C}$
T_L	Maximum Lead Temperature for Soldering during 10s at 4mm from Case	260		$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

Symbols	Parameters	Test Conditions	Value			Units
			Min.	Typ.	Max.	
V_F	Forward Voltage	$I_f=1\text{mA}$	1N60	0.35	0.5	Volts
			1N60P	0.26	0.5	
		$I_f=30\text{mA}$	1N60	0.70	1.0	
I_R	Reverse Current	$V_R=15\text{V}$	1N60	1.0	5.0	μA
			1N60P	5.0	10.0	
		$V_R=1\text{V}$ $f=1\text{MHz}$	1N60	4.0		
C_J	Junction Capacitance	$V_R=10\text{V}$ $f=1\text{MHz}$	1N60	10.0		pF
			1N60P			
h	Detection Efficiency (See diagram 4)	$V_i=3\text{V}$ $f=30\text{MHz}$ $C_L=10\text{pF}$ $R_L=3.8\text{k}\Omega$		60		%
t_{rr}	Reverse Recovery time	$I_f=I_k=1\text{mA}$ $I_{rr}=1\text{mA}$ $R_C=100\Omega$			1	ns
R_{qJA}	Junction Ambient Thermal Resistance			400		$^\circ\text{C}/\text{W}$

RATINGS AND CHARACTERISTIC CURVES 1N60 1N60P

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

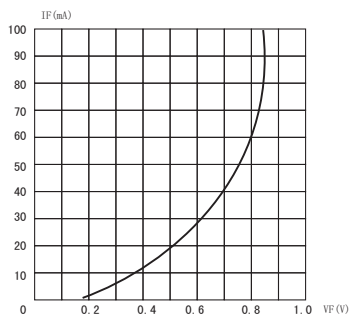


FIG.2-REVERSE CURRENT VERSUS CONTINUOUS REVERSE VOLTAGE

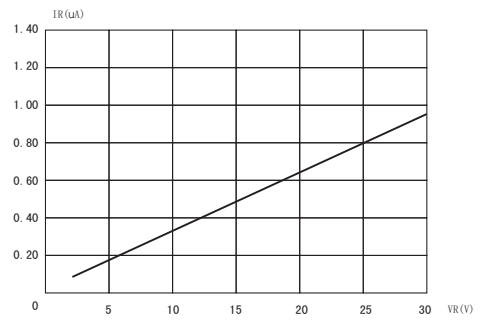


FIG.3-JUNCTION CAPACITANCE VERSUS CONTINUOUS REVERSE APPLIED VOLTAGE

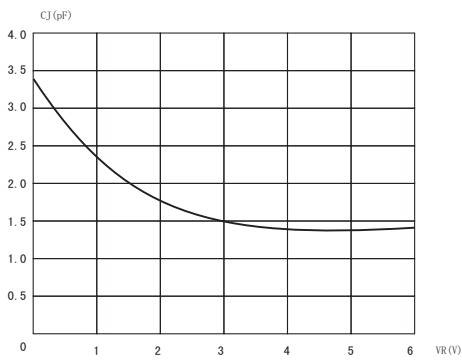


FIG.4-DETECTION EFFICIENCY MEASUREMENT CIRCUIT

