



# 1N60 THRU 1N60P

## SMALL SIGNAL SCHOTTKY DIODE

Reverse Voltage - 40 to 45 Volts    Forward Current - 0.03 / 0.05 Ampere

### 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

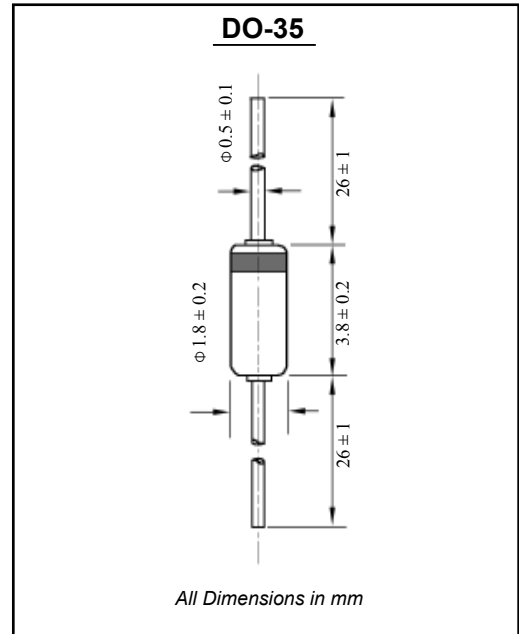
### MECHANICAL DATA

**Case:** DO-35 glass case

**Polarity :** Color band denotes cathode end

**Mounting Position :** Any

**Weight :** 0.13 grams



### ABSOLUTE RATINGS(LIMITING VALUES)

Symbol	Parameters	Value		Units
		1N60	1N60P	
$V_{RRM}$	Repetitive Peak Reverse Voltage	40	45	Volts
$I_F$	Forward Continuous Current	30	50	mA
$I_{FSM}$	Peak Forward Surge Current( $t=1S$ )	150	400	mA
$T_{STG}/T_J$	Storage and junction Temperature Range	-65 to +125		$^{\circ}C$
$T_L$	Maximum Lead Temperature for Soldering during 10S at 4mm from Case	230		$^{\circ}C$

### ELECTRICAL CHARACTERISTICS

Symbol	Parameters	Test Conditions	Value			Units
			Min.	Typ.	Max.	
$V_F$	Forward Voltage	$I_f=1mA$	1N60	0.32	0.5	Volts
			1N60P	0.24	0.5	
		$I_f=200mA$	1N60	0.65	1.0	
$I_R$	Reverse Current	$V_R=15V$	1N60	1.0	5.0	$\mu A$
			1N60P	5.0	10.0	
$C_J$	Junction Capacitance	$V_R=1V$ $f=1MHz$	1N60	2.0		pF
		$V_R=10V$ $f=1MHz$	1N60P	6.0		
$\eta$	Detection Efficiency(See diagram 4)	$V_i=3V$ $f=30MHz$ $C_L=10pF$ $R_L=3.8k \Omega$		60		%
$t_{rr}$	Reverse Recovery time	$I_F=I_R=1mA$ $I_{rr}=1mA$ $R_C=100 \Omega$			1	ns
$R_{\theta JA}$	Junction Ambient Thermal Resistance			400		$^{\circ}C/W$

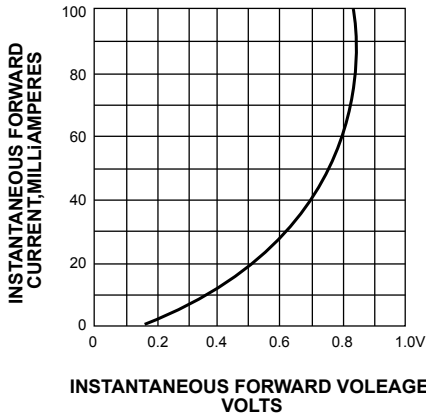


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## RATINGS AND CHARACTERISTIC CURVES

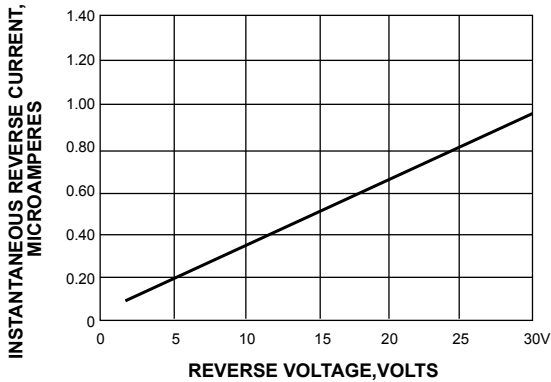
### 1N60

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



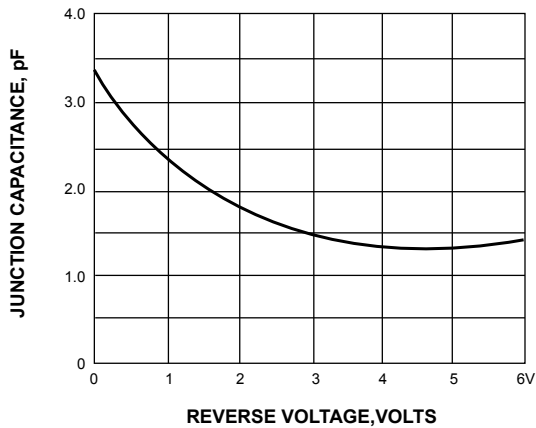
INSTANTANEOUS FORWARD VOLTAGE, VOLTS

FIG. 2-REVERSE CURRENT VERSUS CONTINUOUS REVERSE VOLTAGE



REVERSE VOLTAGE, VOLTS

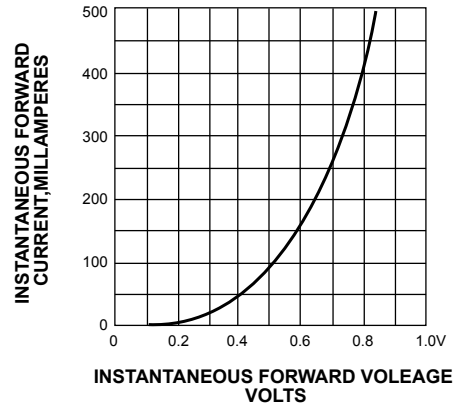
FIG. 3-JUNCTION CAPACITANCE VERSUS CONTINUOUS REVERSE APPLIED VOLTAGE



REVERSE VOLTAGE, VOLTS

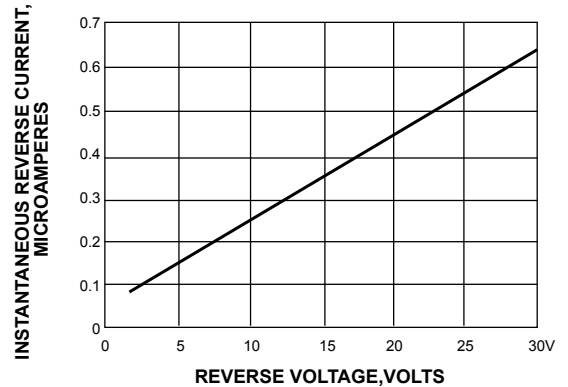
### 1N60P

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



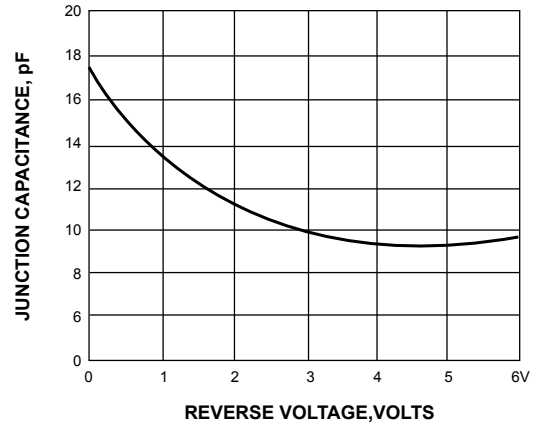
INSTANTANEOUS FORWARD VOLTAGE, VOLTS

FIG. 2-REVERSE CURRENT VERSUS CONTINUOUS REVERSE VOLTAGE



REVERSE VOLTAGE, VOLTS

FIG. 3-JUNCTION CAPACITANCE VERSUS CONTINUOUS REVERSE APPLIED VOLTAGE



REVERSE VOLTAGE, VOLTS