

### GERMANIUM DIODE

VOLTAGE RANGE: 40V  
CURRENT: 0.03 A

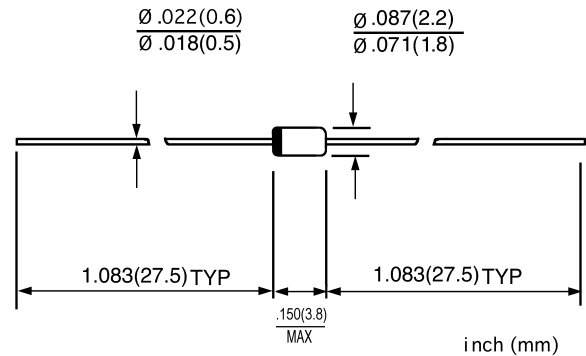
#### FEATURES

- ◇ Metal 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: JEDEC DO--35, glass case
- ◇ Polarity: Color band denotes cathode end
- ◇ Weight: Approx. 0.13 gram

#### DO - 35(GLASS)



#### ABSOLUTE RATINGS(LIMITING VALUES)

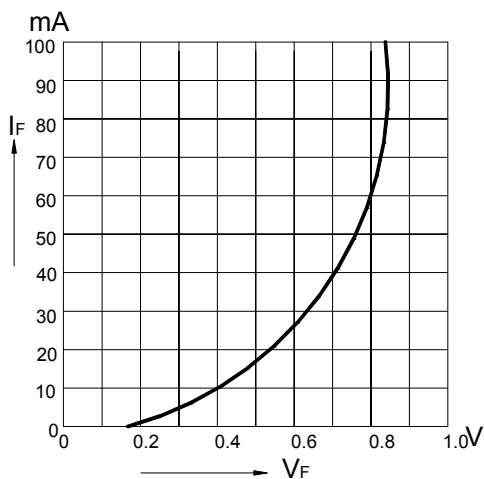
Parameters	Symbols	Value		UNITS
		1N60		
Repetitive peak reverse voltage	$V_{RRM}$	40.0		V
Forward continuous current	$I_F$	30.0		mA
Peak forward surge current (t=1s)	$I_{FSM}$	150.0		mA
Storage and junction temperature range	$T_{STG}/T_J$	- 55 ---- + 150		°C
Maximum lead temperature for soldering during 10s at 4mm from case	$T_L$	230		°C

#### ELECTRICAL CHARACTERISTICS

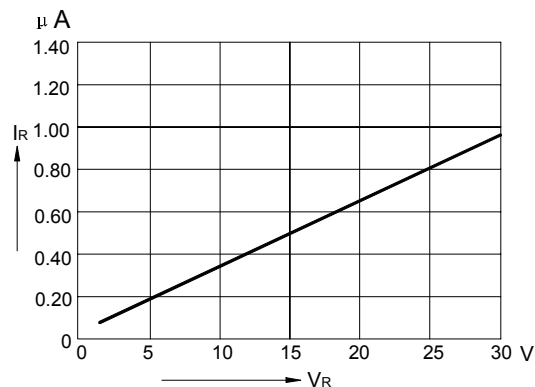
Parameters	Symbols	Test Conditions		Value			UNITS
				Min.	Typ.	Max.	
Forward voltage	$V_F$	$I_F=1mA$	1N60		0.32	0.5	V
		$I_F=30mA$	1N60		0.65	1.0	
Reverse current	$I_R$	$V_R=15V$	1N60		0.1	0.5	$\mu A$
Junction capacitance	$C_J$	$V_R=1V$ $f=1MHz$	1N60		2		pF
Detection efficiency (See FIG. 4)	$\eta$	$V_I=3V$ $f=30MHz$ $C_L=10pF$ $R_L=3.8K \Omega$			60.0		%
Reverse recovery time	$t_{rr}$	$I_F=I_R=1mA$ $t_{tr}=1mA$ $R_L=100 \Omega$				1	ns
Thermal resistance, junction to ambient	$R_{JA}$				400		°C

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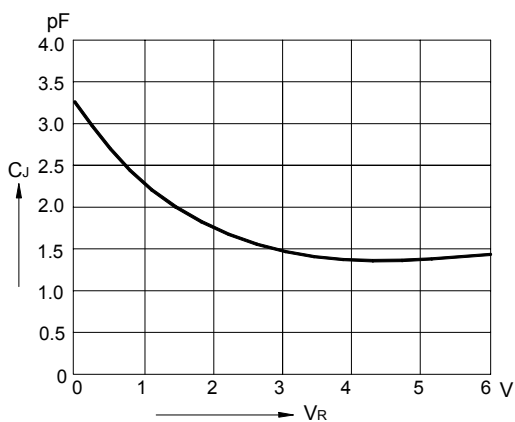
**FIG.1 – FORWARD CURRENT VERSUS FORWARD VOLTAGE (TYPICAL VALUES)**



**FIG.2 – REVERSE CURRENT VERSUS CONTINUOUS REVERSE VOLTAGE**



**FIG.3 – JUNCTION CAPACITANCE VERSUS CONTINUOUS REVERSE APPLIED VOLTAGE**



**FIG.4 – DETECTION EFFICIENCY MEASUREMENT CIRCUIT**

