

SMALL SIGNAL SCHOTTKY DIODE

VOLTAGE RANGE: 40V
CURRENT: 0.03 A

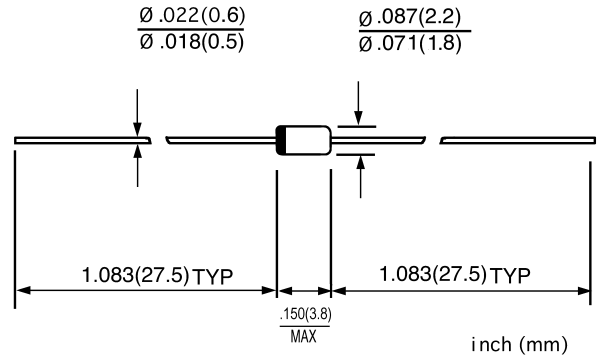
FEATURES

- ◇ 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	$I_F=1\text{mA}$	1N60		0.32	0.5	V
		$I_F=30\text{mA}$	1N60		0.65	1.0	
Reverse current	I_R	$V_R=15\text{V}$	1N60		0.1	0.5	μA
Junction capacitance	C_J	$V_R=1\text{V}$ $f=1\text{MHz}$	1N60		2		pF
Detection efficiency (See FIG. 4)	η	$V_I=3\text{V}$ $f=30\text{MHz}$ $C_L=10\text{pF}$ $R_L=3.8\text{K}\Omega$			60.0		%
Reverse recovery time	t_{rr}	$I_F=I_R=10\text{mA}$ $t_{rr}=1\text{mA}$ $R_L=100\Omega$				1	ns
Thermal resistance, junction to ambient	$R_{\theta JA}$				400		°C/W

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

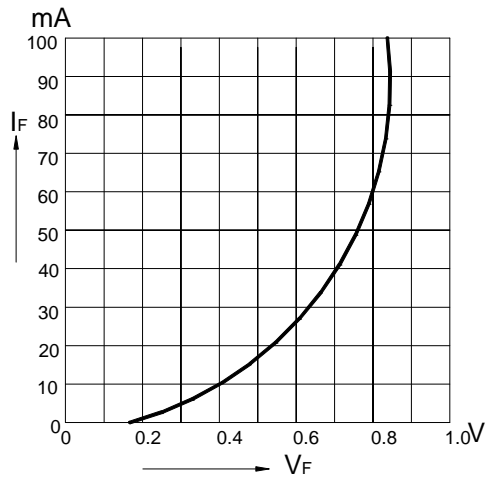


FIG.2 – REVERSE CURRENT VERSUS CONTINUOUS REVERSE VOLTAGE

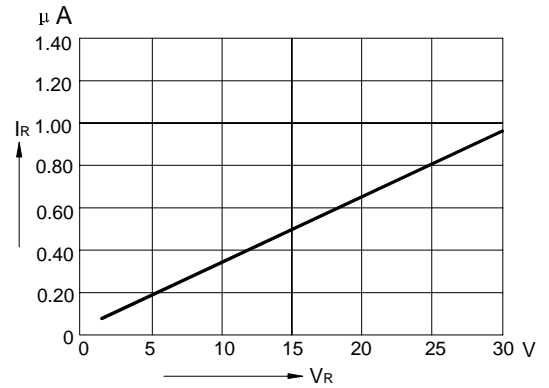


FIG.3 – JUNCTION CAPACITANCE VERSUS CONTINUOUS REVERSE APPLIED VOLTAGE

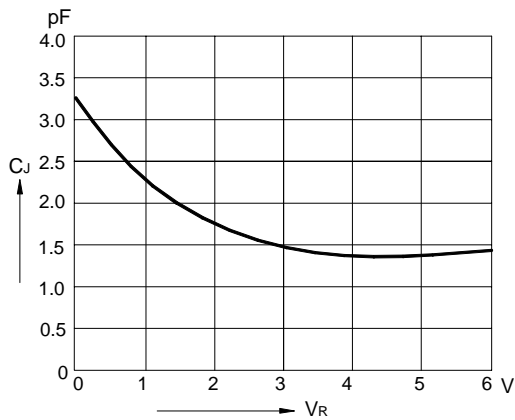


FIG.4 – DETECTION EFFICIENCY MEASUREMENT CIRCUIT

