

SMALLE SIGNAL SCHOTTKY RECTIFIERS

FEATURES:

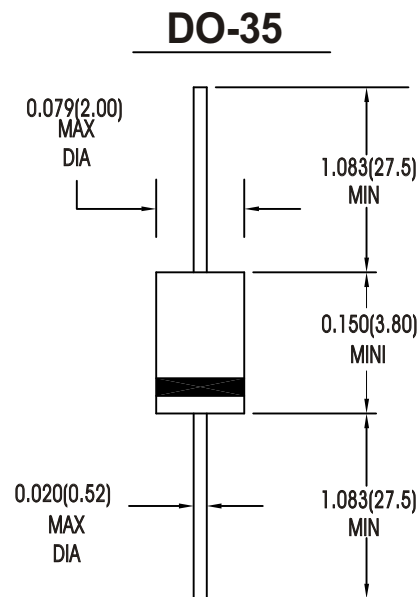
- Metal-on-silicon junction, majority carrier conduction
- High current capability, low forward voltage drop
- Ultra speed switching characteristics
- Extremely low reverse current IR
- Satisfactory wave detection efficiency
- Small temperature coefficient of forward characteristics
- For use in Recorder/TV/RADIO/TELEPHONE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

MECHANICAL DATA

Case: DO-35 glass case

Polarity: color band denotes cathode end

Weight: Approx 0.13 grams



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25° C ambient temp. unless otherwise specified.

Single phase, half sine wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20 %.

Characteristic	Symbol	1N60	1N60P	Units
Repetitive peak reverse voltage	V_{RRM}	20	30	Volts
Forward current at $T_a=25^\circ\text{C}$	$I_{(AV)}$	30	50	mA
Peak forward surge current, $t=1\text{S}$	I_{FSM}	150	400	mA
Maximum instantaneous forward voltage drop at	V_F	$I_F=1.0\text{mA}$	0.50	Volts
		$I_F=30\text{mA}$	1.0	
		$I_F=200\text{mA}$	1.0	
Maximum reverse current At $V_R=15\text{V } 25^\circ\text{C}$	I_R	5.0	10	μA
Typical junction capacitance (Note 1)	C_F	4.0	10	pF
Typical Efficiency (See diagram 4) (Note 2)	η	60		%
Maximum reverse Recovery time (Note 3)	T_{RR}	1.0		ns
Typical Junction Ambient Thermal Resistance	$R_{\theta JT}$	400		$^\circ\text{C/W}$
Operating temperature range	T_J	-65 to +125		$^\circ\text{C}$
Storage temperature range	T_{stg}	-65 to +125		$^\circ\text{C}$

Note : 1. $V_R=1\text{V}$, $f=1\text{MHz}$ For 1N60, $V_R=10\text{V}$, $f=1\text{MHz}$ For 1N60P

2. $V_1=3\text{V}$, $f=300\text{MHz}$, $C_L=10\text{pF}$, $R_L=3.8\text{k}\Omega$

3. $I_F=1\text{mA}$, $T_{rr}=1\text{mA}$, $R_c=100\Omega$

FIG. 1-FORWARD CURRENT

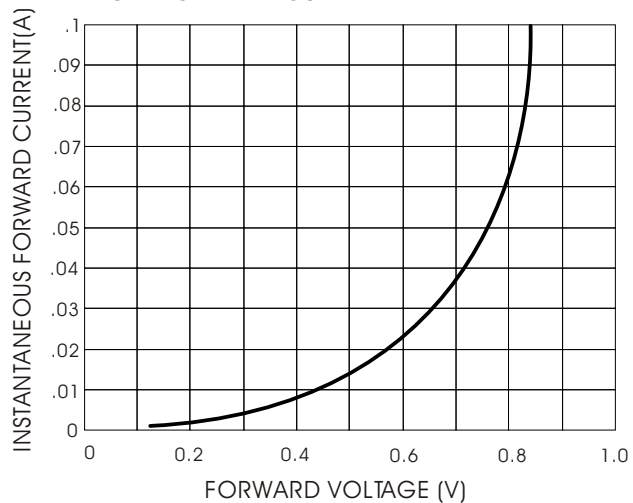


FIG. 2-REVERSE CURRENT

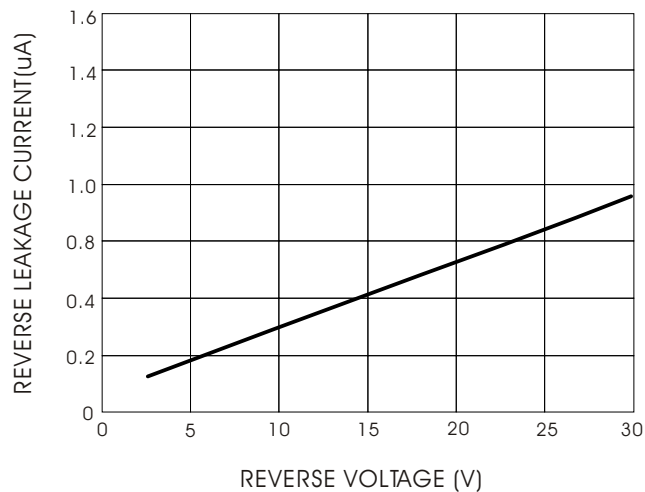


FIG. 3-JUNCTION CAPACITANCE

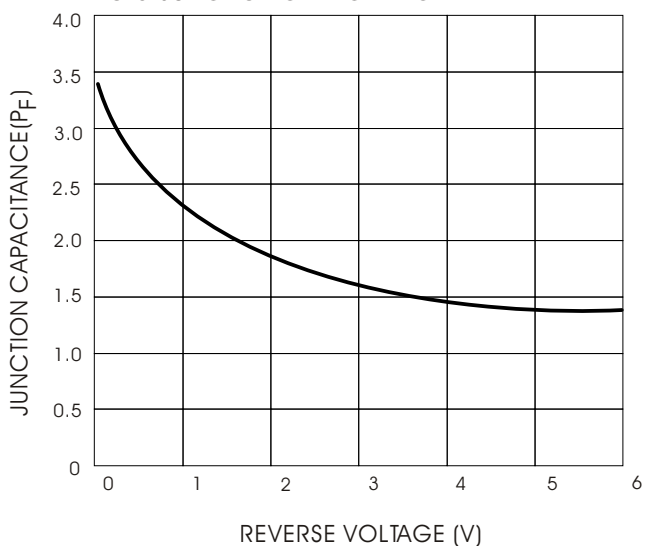


FIG. 4-DETECTION EFFICIENCY MEASUREMENT CIRCUIT

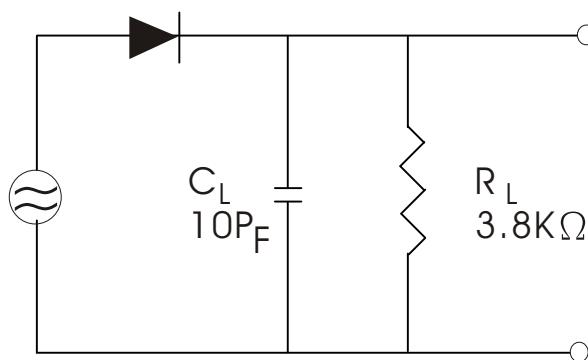


FIG.1-FORWARD CURRENT

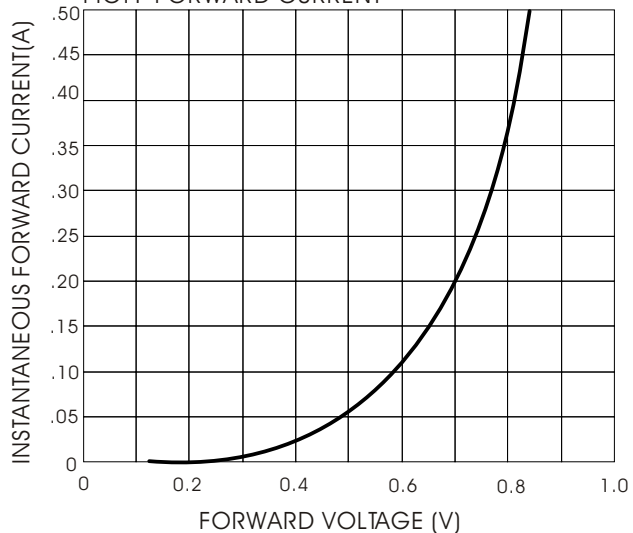


FIG.2-REVERSE CURRENT

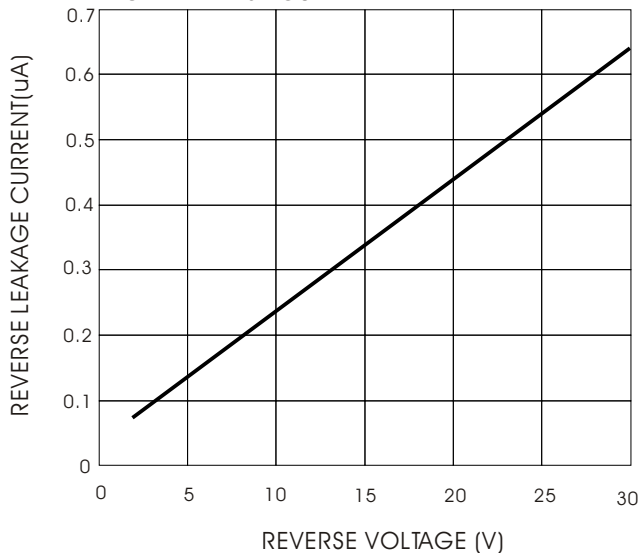


FIG.3-JUNCTION CAPACITANCE

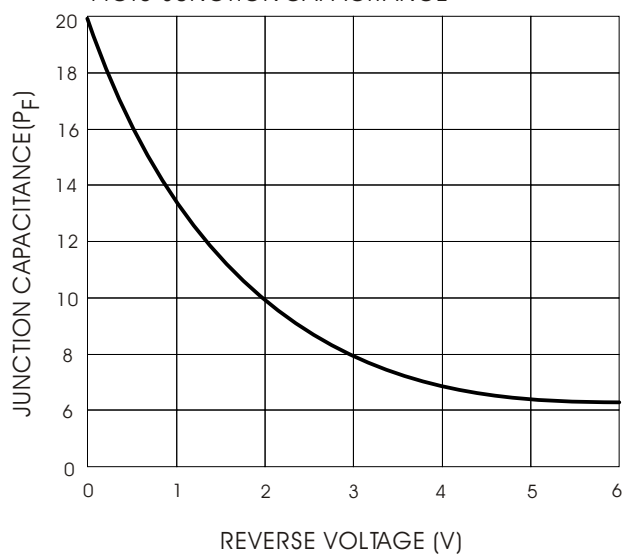


FIG.4-DETECTION EFFICIENCY MEASUREMENT CIRCUIT

