SMALL SIGNAL SCHOTTKY DIODES

VOLTAGE RANGE: 45 V
CURRENT: 0.1 A

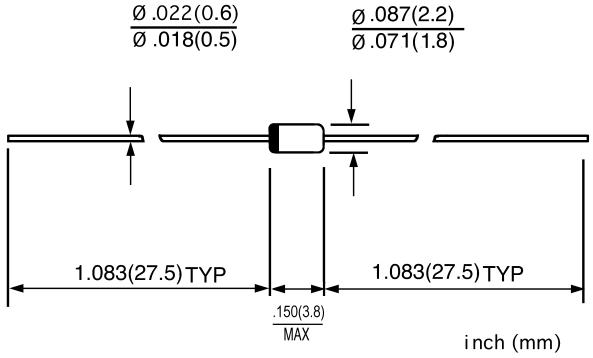
FEATURES

- ◇ Metal sillicon 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
			1N60P	
Repetitive peak reverse voltage		V_{RRM}	45	V
Forward continuous current	T_A=25℃	I_F	50	mA
Peak forward surge current (t=1s)		I_{FSM}	500	mA
Storage and junction temperature range		T_{STG}/T_J	- 55 ---- + 125	℃
Maximum lead temperature for soldering during 10s at 4mm from case		T_L	230	℃

ELECTRICAL CHARACTERISTICS

Parameters	Symbols	Test Conditions	Value			UNITS
			Min.	Typ.	Max.	
Forward voltage	V_F	I_F=1mA		0.24	0.5	V
		I_F=200mA		0.65	1.0	
Reverse current	I_R	V_R=15V		0.5	1.0	μA
Junction capacitance	C_J	V_R=10V f=1MHz		6.0		pF
Detection efficiency (See FIG. 4)	η	V_I=3V f=30MHz C_L=10pF R_L=3.8KΩ		60.0		%
Reverse recovery time	t_{rr}	I_F=I_R=1mA I_{rr}=1mA R_C=100Ω			1.0	ns
Thermal resistance junction to ambient	$R_{\theta JA}$			400		℃/W

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

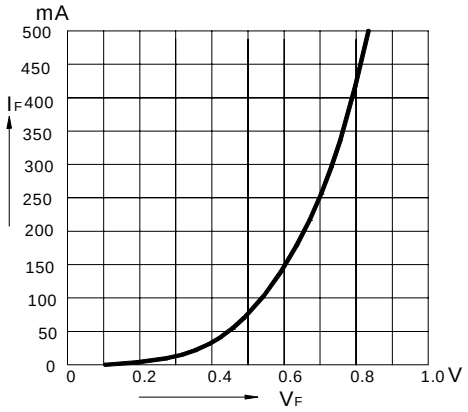


FIG.2 -- REVERSE CURRENT VERSUS CONTINUOUS REVERSE VOLTAGE

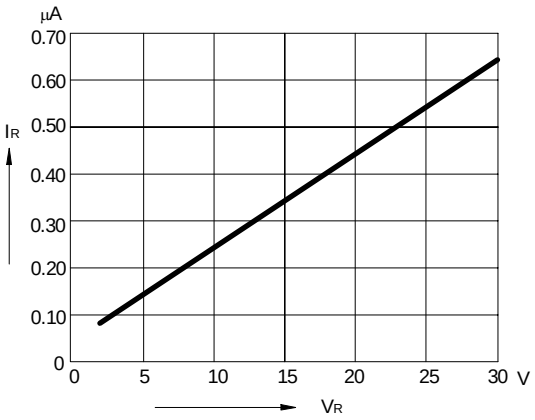


FIG.3 -- JUNCTION CAPACITANCE VERSUS CONTINUOUS REVERSE APPLIED VOLTAGE

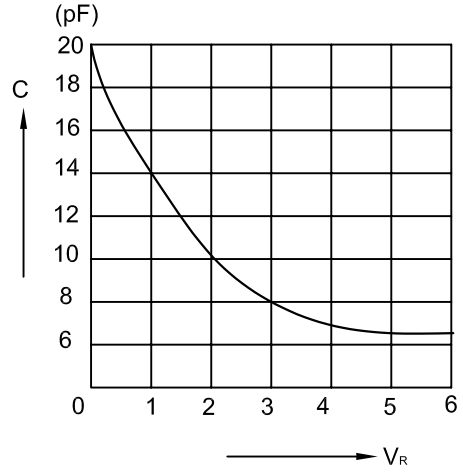


FIG.4 -- DETECTION EFFICIENCY MEASUREMENT CIRCUIT

