

Schottky Barrier Diode

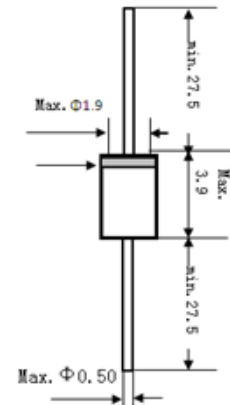
VOLTAGE RANGE: 30V PEAK PULSE POWER: 200mW

Features

- V_R 40V
- I_{FAV} 30mA
- Use in super high speed switching circuits, small current rectifier

MECHANICAL DATA

- Case: DO-35
- Polarity: Color band denotes cathode end
- Mounting Position: Any



Glass DO-35
Dimensions in mm

MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

Parameters	Symbols	Value	UNITS
		1N60P	
Repetitive peak reverse voltage	V_{RRM}	45	V
Forward continuous current	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	°C
Maximum lead temperature for soldering during 10s at 4mm from case	T_L	230	°C

Electrical Specification ($T_A=25^\circ\text{C}$ unless otherwise specified)

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

RATINGS AND CHARACTERISTIC CURVES

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

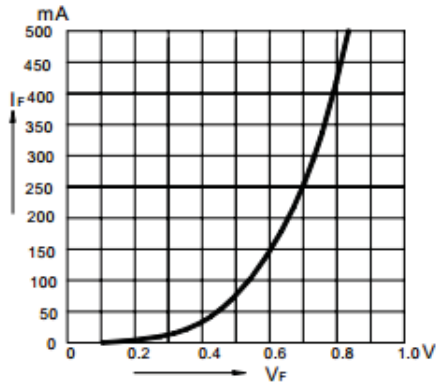


FIG.2 – REVERSE CURRENT VERSUS CONTINUOUS REVERSE VOLTAGE

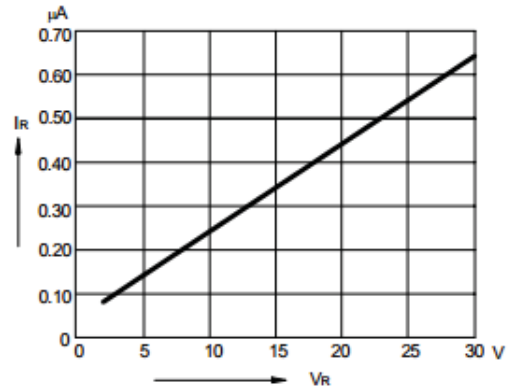


FIG.3 – JUNCTION CAPACITANCE VERSUS CONTINUOUS REVERSE APPLIED VOLTAGE

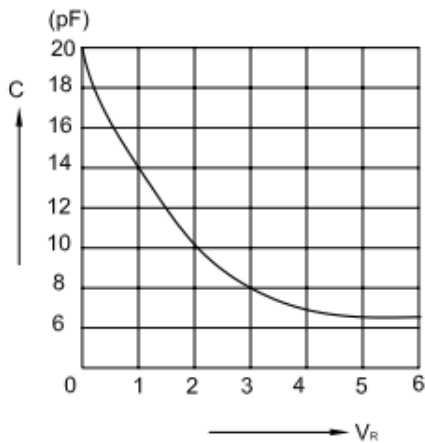


FIG.4 – DETECTION EFFICIENCY MEASUREMENT CIRCUIT

