新芯微电子
NewChip
Microelectronics

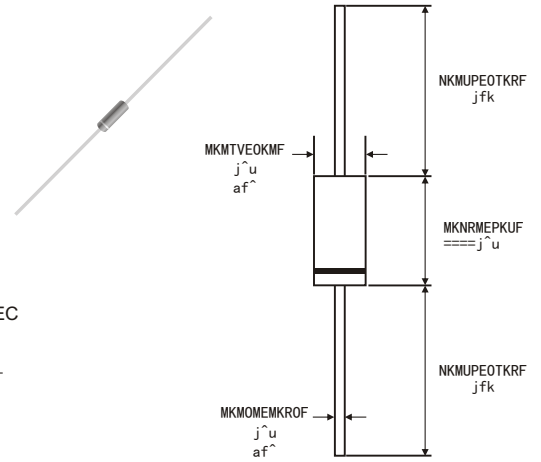
1N60, 1N60P

SMALL SIGNAL SCHOTTKY DIODES

FEATURES

- Metal-on-silicon junction, majority carrier conduction
- High current capability, Low forward voltage drop
- Extremely low reverse current IR
- Ultra speed switching characteristics
- Small temperature coefficient of forward characteristics
- Satisfactory wave detection efficiency
- For use in recorder, TV ,radio and telephone as detectors
- Super high speed switching cirits, small current rectifier
- High temperature soldering guaranteed:260℃/10 seconds at terminals
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

DO-35



Dimensions in inches and (millimeters)

MECHANICAL DATA

- *Case*: DO-35 glass case
- *Polarity*:color band denotes cathode end
- *Weight*: Approx. 0.13 gram

ABSOLUTE RATINGS(LIMITING VALUES)

Symbols	Parameters		Value		Units
			1N60	1N60P	
V_{RRM}	Repetitive Peak Reverse Voltage		40	40	Volts
IF	Forward Continuous Current	T_A=25˚C	30	50	mA
I_{FSM}	Peak Forward Surge Current(t=1s)		150	400	mA
T_{STG}/T_J	Storage and junction Temperature Range		-55 to+125		℃
T_L	Maximum Lead Temperature for Soldering during 10s at 4mm from Case		260		℃

ELECTRICAL CHARACTERISTICS

Symbols	Parameters	Test Conditions		Value			Units
				Min.	Typ.	Max.	
V_F	Forward Voltage	I_F=1mA	1N60		0.35	0.5	Volts
			1N60P		0.26	0.5	
		I_F=30mA	1N60		0.70	1.0	
		I_F=200mA	1N60P		0.70	1.0	
I_R	Reverse Current	V_R=15V	1N60		1.0	5.0	mA
			1N60P		5.0	10.0	
C_J	Junction Capacitance	V_R=1V f=1MHz	1N60		4.0		pF
		V_R=10V f=1MHz	1N60P		10.0		
h	Detection Efficiency(See diagram 4)	V_I=3V f=30MHz C_L=10pF R_L=3.8kΩ			60		%
t_{rr}	Reverse Recovery time	I_F=I_R=1mA Irr=1mA R_C=100Ω				1	ns
$R_{\theta JA}$	Junction Ambient Thermal Resistance				400		˚C/W

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

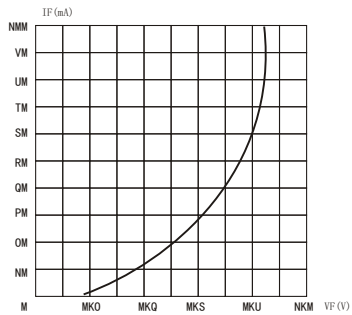


FIG.2-REVERSE CURRENT VERSUS CONTINUOUS REVERSE VOLTAGE

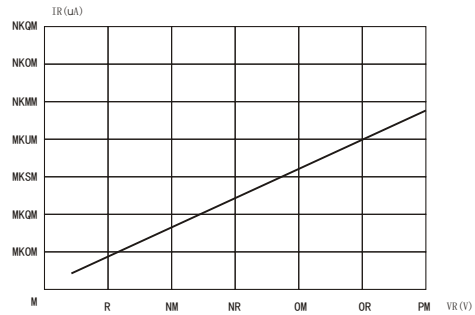


FIG.3-JUNCTION CAPACITANCE VERSUS CONTINUOUS REVERSE APPLIED VOLTAGE

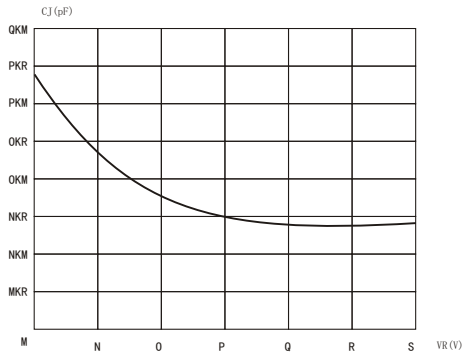


FIG.4-DETECTION EFFICIENCY MEASUREMENT CIRCUIT

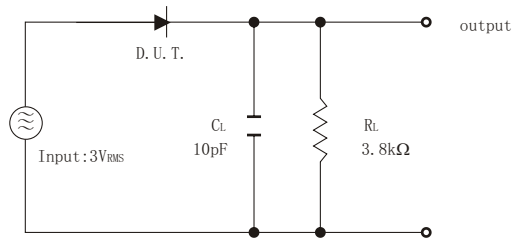


FIG.1-FORWARD CURRENT VERSUS FORWARD VOLTAGE (TYPICAL VALUES)

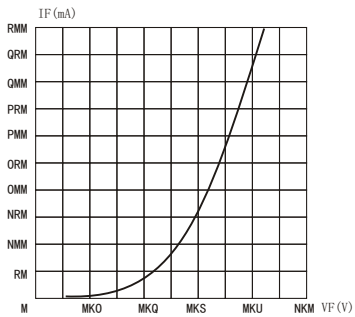


FIG.2-REVERSE CURRENT VERSUS CONTINUOUS REVERSE VOLTAGE

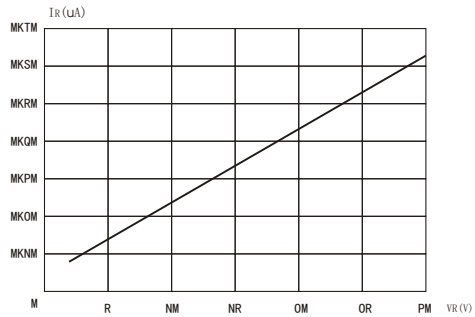


FIG.3-JUNCTION CAPACITANCE VERSUS CONTINUOUS REVERSE APPLIED VOLTAGE

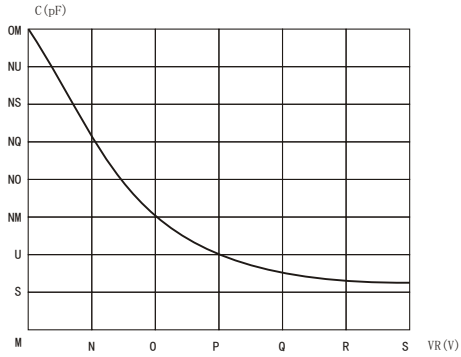


FIG.4-DETECTION EFFICIENCY MEASUREMENT CIRCUIT