

### FEATURES

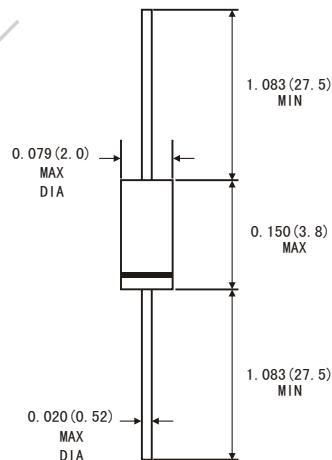
- Metal-on-silicon junction, majority carrier conduction
- High current capability, Low forward voltage drop
- Extremely low reverse current IR
- Ultra speed switching characteristics
- Small temperature coefficient of forward characteristics
- Satisfactory wave detection efficiency
- For use in recorder,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

### MECHANICAL DATA

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



### DO-35



Dimensions in inches and (millimeters)

### ABSOLUTE RATINGS(LIMITING VALUES)

| Symbols | Parameters                                                         |         | Value      |       | Units |
|---------|--------------------------------------------------------------------|---------|------------|-------|-------|
|         |                                                                    |         | 1N60       | 1N60P |       |
| VRRM    | Repetitive Peak Reverse Voltage                                    |         | 40         | 40    | Volts |
| IF      | Forward Continuous Current                                         | TA=25°C | 30         | 50    | mA    |
| IFSM    | Peak Forward Surge Current(t=1s)                                   |         | 150        | 400   | mA    |
| TSTG/TJ | Storage and junction Temperature Range                             |         | -55 to+125 |       | °C    |
| TL      | Maximum Lead Temperature for Soldering during 10s at 4mm from Case |         | 260        |       | °C    |

### ELECTRICAL CHARACTERISTICS

| Symbols | Parameters                          | Test Conditions                | Value |      |      | Units |
|---------|-------------------------------------|--------------------------------|-------|------|------|-------|
|         |                                     |                                | Min.  | Typ. | Max. |       |
| VF      | Forward Voltage                     | IF=1mA                         | 1N60  | 0.35 | 0.5  | Volts |
|         |                                     |                                | 1N60P | 0.26 | 0.5  |       |
|         |                                     | IF=30mA                        | 1N60  | 0.70 | 1.0  |       |
|         |                                     |                                | 1N60P | 0.70 | 1.0  |       |
| IR      | Reverse Current                     | VR=15V                         | 1N60  | 1.0  | 5.0  | mA    |
|         |                                     |                                | 1N60P | 5.0  | 10.0 |       |
|         |                                     |                                | 1N60  | 4.0  |      |       |
| CJ      | Junction Capacitance                | VR=1V f=1MHz                   | 1N60  | 10.0 |      | pF    |
|         |                                     | VR=10V f=1MHz                  | 1N60P |      |      |       |
| h       | Detection Efficiency(See diagram 4) | VI=3V f=30MHz CL=10pF RL=3.8kΩ |       | 60   |      | %     |
| trr     | Reverse Recovery time               | IF=IR=1mA Irr=1mA Rc=100Ω      |       |      | 1    | ns    |
| RθJA    | Junction Ambient Thermal Resistance |                                |       | 400  |      | °C/W  |

# RATINGS AND CHARACTERISTIC CURVES 1N60

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

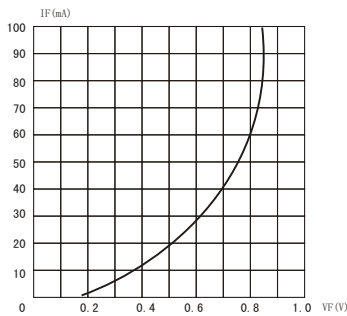


FIG.2-REVERSE CURRENT VERSUS CONTINUOUS REVERSE VOLTAGE

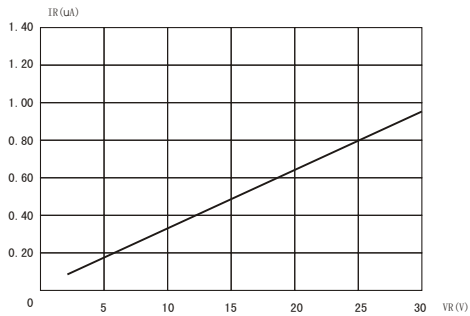


FIG.3-JUNCTION CAPACITANCE VERSUS CONTINUOUS REVERSE APPLIED VOLTAGE

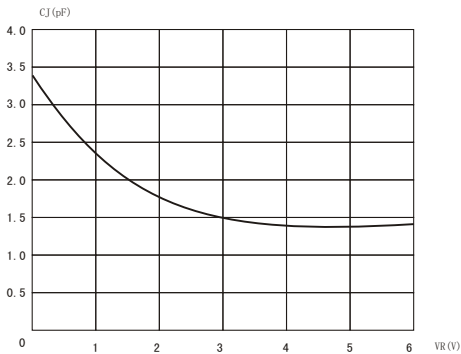
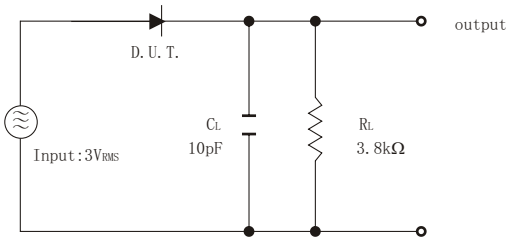


FIG.4-DETECTION EFFICIENCY MEASUREMENT CIRCUIT



# RATINGS AND CHARACTERISTICS CURVES 1N60P

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

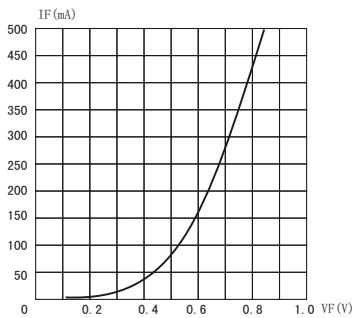


FIG.2-REVERSE CURRENT VERSUS CONTINUOUS REVERSE VOLTAGE

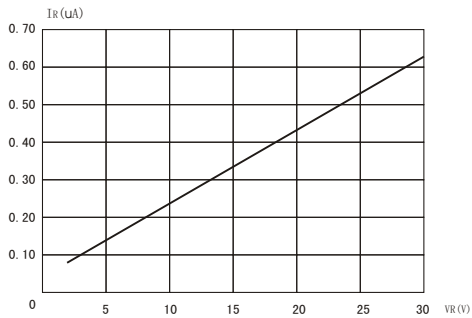


FIG.3-JUNCTION CAPACITANCE VERSUS CONTINUOUS REVERSE APPLIED VOLTAGE

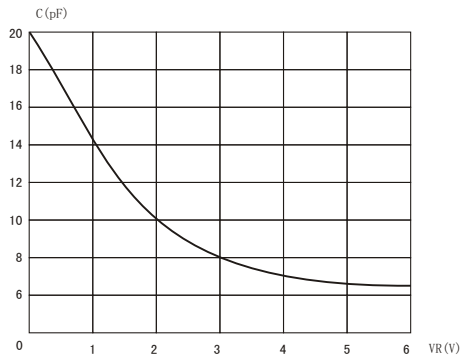


FIG.4-DETECTION EFFICIENCY MEASUREMENT CIRCUIT

