

SMALL SIGNAL SCHOTTKY DIODE

VOLTAGE RANGE: 60 V
POWER DISSIPATION:400 mW

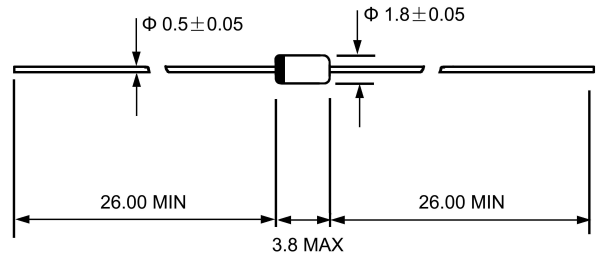
FEATURES

- ◇ For general purpose applications
- ◇ Metal silicon schottky barrier device which is protected by a PN junction guard ring. The low forward voltage drop and fast switching make it ideal for protection of MOS devices, steering, biasing and coupling diodes for fast switching and low logic level applications

MECHANICAL DATA

- ◇ Case: JEDEC DO--35, glass case
- ◇ Polarity: Color band denotes cathode end
- ◇ Weight: Approx. 0.13 gram

DO - 35(GLASS)



Dimensions in millimeters

ABSOLUTE RATINGS(LIMITING VALUES)

| | Symbols | Value | UNITS |
|---|-----------|-------------------|-------|
| Peak reverse voltage | V_{RRM} | 60.0 | V |
| Power dissipation (Infinite Heat Sink) | P_{tot} | 400 ¹⁾ | mW |
| Maximum single cycle surge 10 μ s square wave | I_{FSM} | 2.0 | A |
| Junction temperature | T_J | 125 | °C |
| Storage temperature range | T_{STG} | -55 ---+ 150 | °C |

1)Valid provided that electrodes are kept at ambient temperature.

ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified)

| | Symbols | Min. | Typ. | Max. | UNITS |
|--|-----------------|------|------|-------|-------|
| Reverse breakdown voltage @ $I_R=10\mu A$ | V_R | 60.0 | | | V |
| Leakage current @ $V_R=50V$ | I_R | | | 200.0 | nA |
| Forward voltage drop @ $I_F=1mA$ | V_F | | | 0.41 | V |
| @ $I_F=15mA$ | V_F | | | 1.0 | V |
| Junction capacitance @ $V_R=0V, f=1MHz$ | C_J | | | 2.2 | pF |
| Reverse recovery time @ $I_F=I_R=5mA$, recover to 0.1 A | t_{rr} | | | 1 | ns |
| Thermal resistance junction to ambient air | $R_{\theta JA}$ | | | 0.3 | °C/mW |

FIG.1 – TYPICAL VARIATION OF FWD. CURRENT VS FWD. VOLTAGE FOR PRIMARY CONDUCTION THROUGH THE SCHOTTKY BARRIER

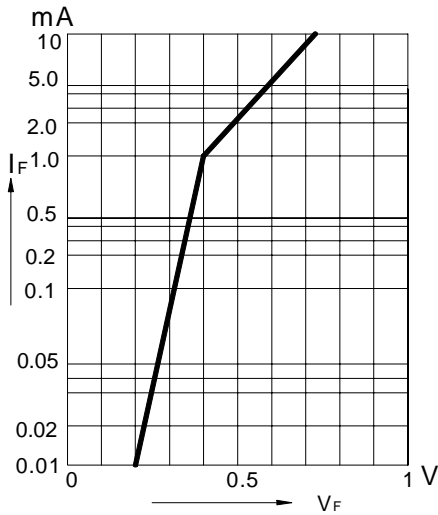


FIG.2 – TYPICAL FORWARD CONDUCTION CURVE OF COMBINATION SCHOTTKY BARRIER AND PN JUNCTION GUARD RING

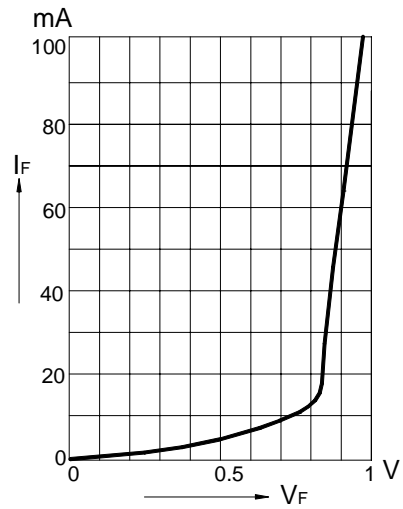


FIG.3 – TYPICAL VARIATION OF REVERSE CURRENT AT VARIATION TEMPERATURES

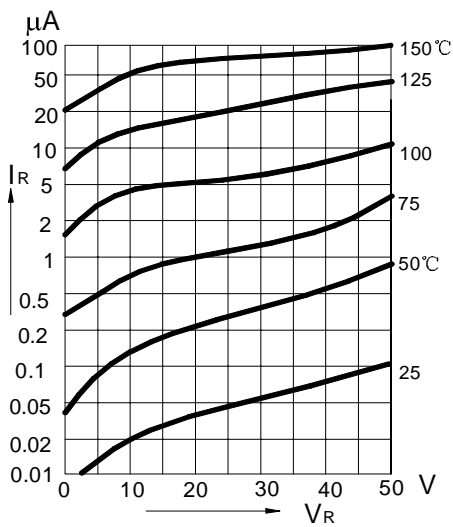


FIG.4 – TYPICAL CAPACITANCE CURVE AS A JUNCTION OF REVERSE VOLTAGE

