



Schottky Barrier Diode

Features

1. For general purpose applications.
2. Metal-on-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.



Absolute Maximum Ratings($T_j=25^\circ\text{C}$)

| Parameter | Part | Symbol | Value | Unit |
|---|--------|-----------|----------|------------------|
| Peak inverse voltage | 1N5711 | V_{RRM} | 70 | V |
| | 1N6263 | V_{RRM} | 60 | V |
| Maximum single cycle surge 10us square wave | | I_{FSM} | 2.0 | A |
| Power dissipation | | P_{tot} | 400 | mW |
| Maximum junction temperature | | T_j | 125 | $^\circ\text{C}$ |
| Storage temperature range | | T_s | -55~+150 | $^\circ\text{C}$ |

Stresses exceeding maximum ratings may damage the device. Maximum ratings are stress ratings only. Functional operation above the recommended operating conditions is not implied. Extended exposure to stresses above the recommended operating conditions may affect device reliability.

Electrical Characteristics($T_j=25^\circ\text{C}$)

| Parameter | Symbol | Test Conditions | Part | Min | Typ | Max | Unit |
|---------------------------|-------------|---|--------|-----|-----|------|------|
| Reverse breakdown voltage | $V_{(BR)R}$ | $I_R=10\ \mu\text{A}$ (pulsed) | 1N5711 | 70 | - | - | V |
| | | | 1N6263 | 60 | - | - | V |
| Leakage current | I_R | $V_R=50\text{V}$ | | - | - | 200 | nA |
| Forward voltage drop | V_F | $I_F=1\text{mA}$ | | - | - | 0.41 | V |
| | | $I_F=15\text{mA}$ | | - | - | 1.0 | V |
| Junction capacitance | C_{tot} | $V_R=0\text{V}$, $f=1\text{MHz}$ | 1N5711 | - | - | 2.0 | pF |
| | | | 1N6263 | - | - | 2.2 | pF |
| Reverse recovery time | t_{rr} | $I_F=I_R=5\text{mA}$ recover to $0.1 I_R$ | | - | - | 1.0 | ns |

Excel Semiconductor



Characteristics ($T_j=25^\circ\text{C}$ unless otherwise specified)

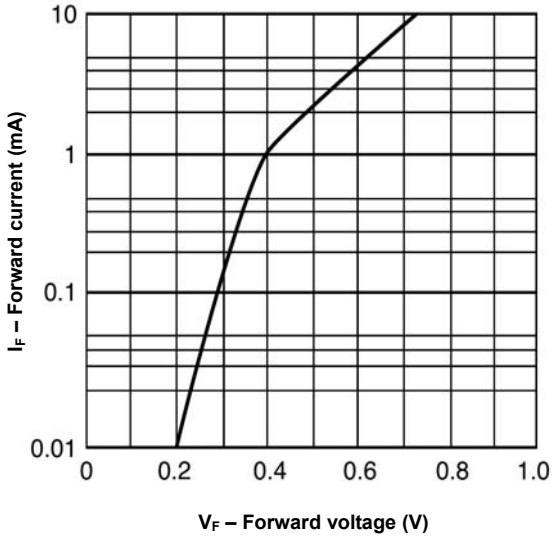


Figure 1. Typical variation of forward current vs. forward voltage

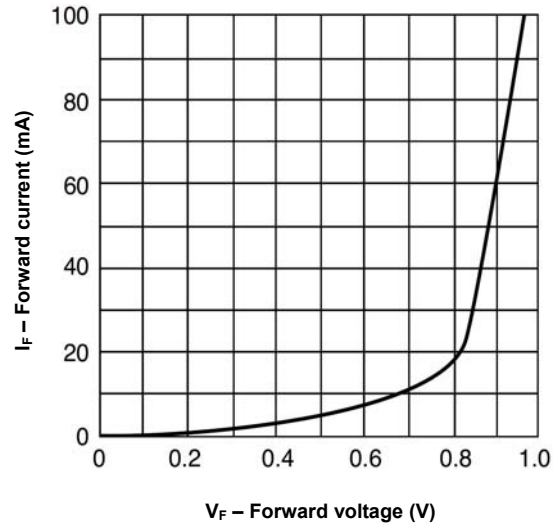


Figure 2. Typical forward conduction curve

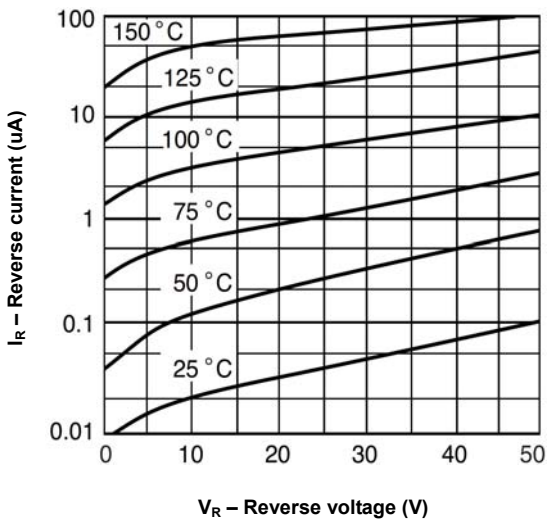


Figure 3. Typical variation of reverse current at various temperatures

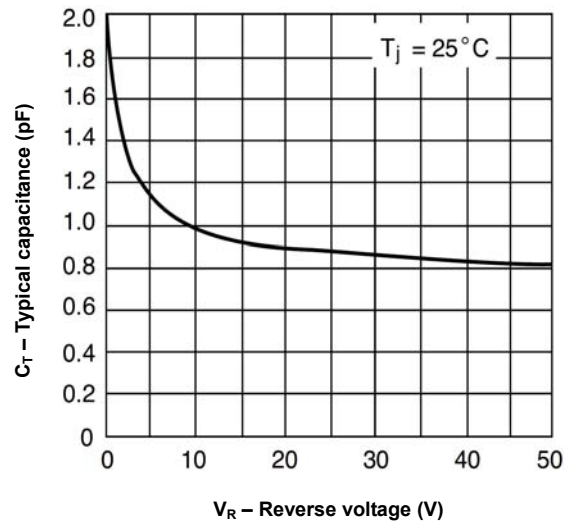
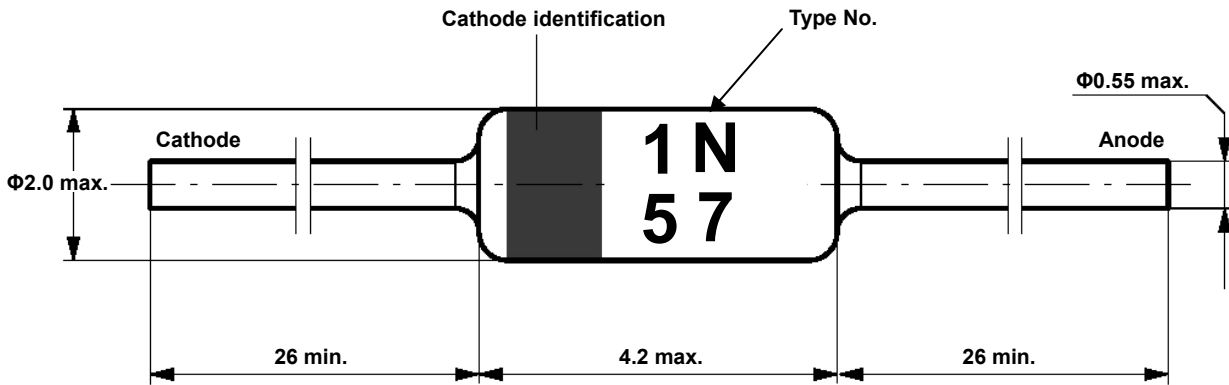


Figure 4. Typical capacitance curve as a function of reverse voltage



Dimensions in mm



Standard Glass Case
JEDEC DO-35

Marking

