

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.
3. This diode is also available in the Mini MELF case with type designation LL5711 and LL6263.



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 | $^\circ\text{C}$ |

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 |

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

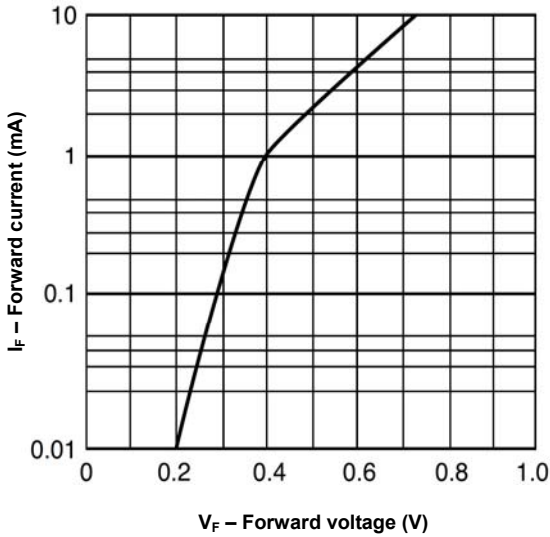


Figure 1. Typical variation of forward current vs. forward voltage

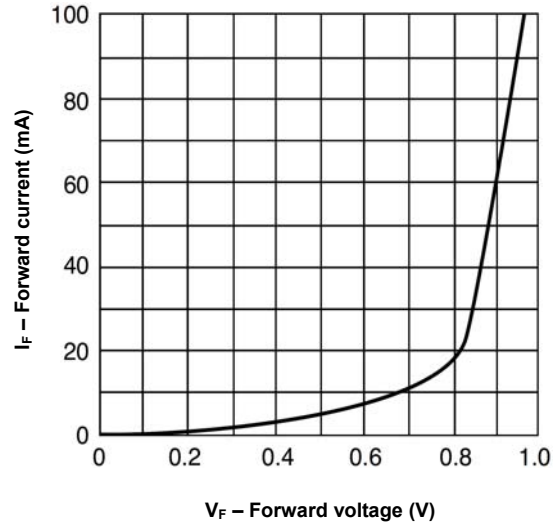


Figure 2. Typical forward conduction curve

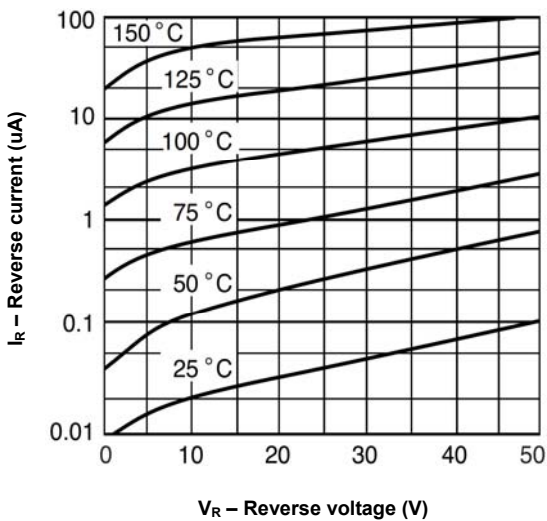


Figure 3. Typical variation of reverse current at various temperatures

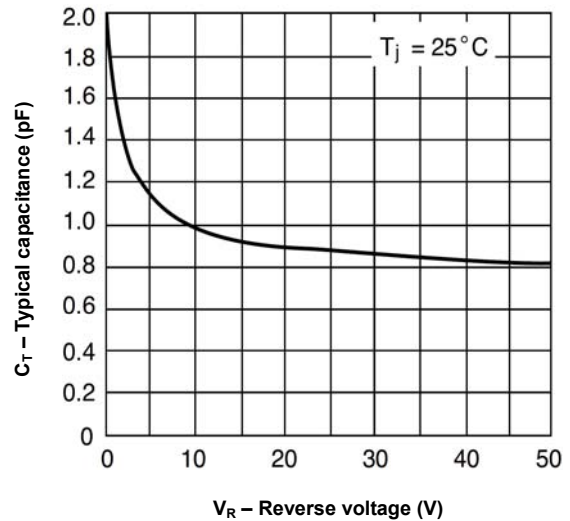
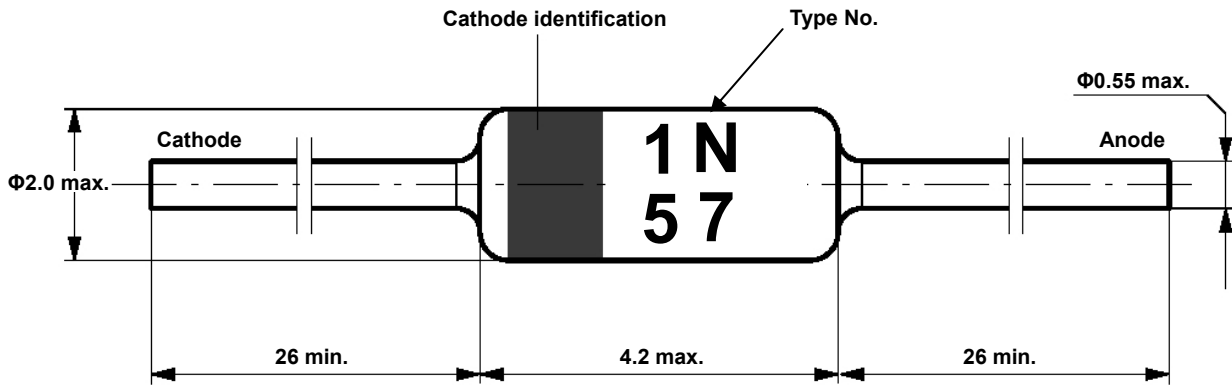


Figure 4. Typical capacitance curve as a function of reverse voltage

Dimensions in mm



Standard Glass Case
JEDEC DO 35

Marking

