



# 1N5711 and 1N6263

Small-Signal Diode  
Schottky Diodes

## Features

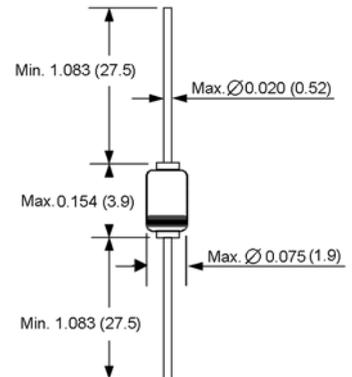
- ◆ For general purpose applications
- ◆ Metal-on-silicon Schottky barrier device which is protected by a PN junction guard ring. The low forward voltage drop and fast switching make it ideal for protection of MOS devices, steering, biasing and coupling diodes for fast switching and low logic level applications.
- ◆ This diode is also available in the MiniMELF case with type designation LL5711 and LL6263.



DO-204AH (DO-35 Glass)

## Mechanical Data

- ◆ Case: DO-35 Glass Case
- ◆ Weight: approx. 0.13g



Dimensions in inches and (millimeters)

## Maximum Ratings and Thermal Characteristics

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

| Parameter                                         | Symbol          | Value                      | Unit  |
|---------------------------------------------------|-----------------|----------------------------|-------|
| Peak inverse voltage                              | $V_{RRM}$       | 70<br>60                   | Volts |
| Power dissipation (Infinite heatsink)             | $P_{tot}$       | 400 <sup>(1)</sup>         | mW    |
| Maximum single cycle surge 10 $\mu$ s square wave | $I_{FSM}$       | 2.0                        | Amps  |
| Thermal resistance junction to ambient air        | $R_{\theta JA}$ | 0.3 <sup>(1)</sup>         | °C/mW |
| Junction temperature                              | $T_j$           | 125 <sup>(1)</sup>         | °C    |
| Storage temperature range                         | $T_s$           | -55 to +150 <sup>(1)</sup> | °C    |

## Electrical Characteristics

( $T_j=25^\circ\text{C}$  unless otherwise noted.)

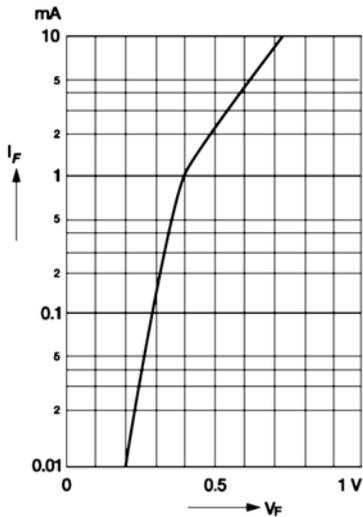
| Parameter                 | Symbol      | Test Condition                                 | Min.     | Typ. | Max.        | Unit  |
|---------------------------|-------------|------------------------------------------------|----------|------|-------------|-------|
| Reverse breakdown voltage | $V_{(BR)R}$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

Notes: 1. Valid provided that leads at a distance of 4mm from case are kept at ambient temperature.

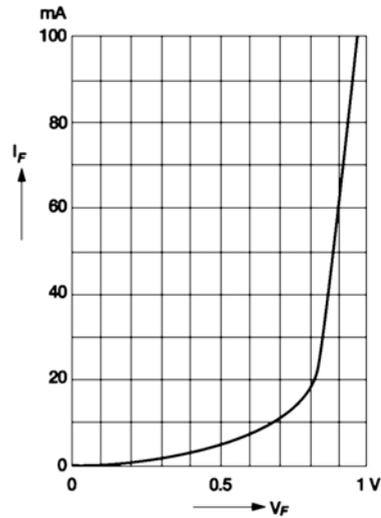
# RATINGS AND CHARACTERISTIC CURVES

( $T_A = 25^\circ\text{C}$  unless otherwise noted)

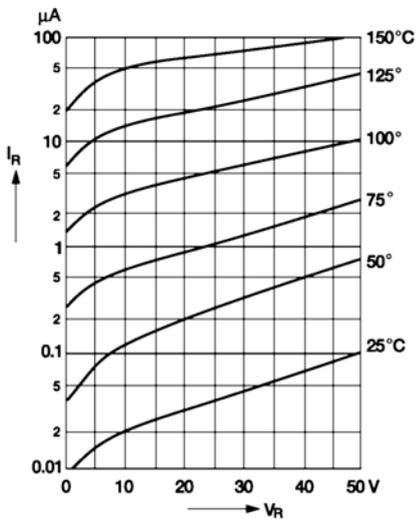
**Typical variation of fwd. current vs. fwd. voltage for primary conduction through the Schottky barrier**



**Typical forward conduction curve of combination Schottky barrier and PN junction guard ring**



**Typical variation of reverse current at various temperatures**



**Typical capacitance curve as a function of reverse voltage**

