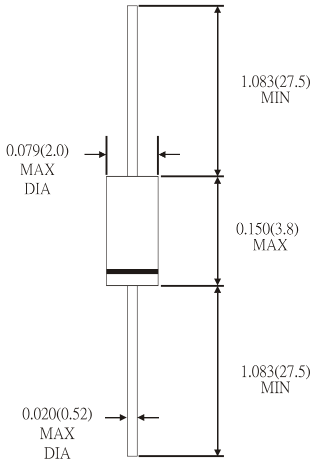
# 1N5711 THUR 1N6263

## SMALL SIGNAL SCHOTTKY DIODES

## DO-35



Dimensions in inches and (millimeters)

## FEATURES

- For general purpose applications
- Metal-on-silicon junction 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
- These diodes are also available in the Mini-MELF case with type designation LL5711 and LL6263

## MECHANICAL DATA

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

## ABSOLUTE RATINGS(LIMITING VALUES)

| | | Symbols | Value | Units |
|---|---|---|---|---|
| Peak Reverse Voltage | 1N5711<br>1N6263 | $V_{RRM}$<br>$V_{RRM}$ | 60<br>70 | V<br>V |
| Power Dissipation (infinite Heat Sink) | | $P_{tot}$ | 400 [1] | mW |
| Maximum Single cycle surge 10µs square wave | | $I_{FSM}$ | 2.0 | mW |
| Junction Temperature | | $T_J$ | 125 | ℃ |
| Storage Temperature Range | | $T_{STG}$ | -55 to+150 | ℃ |
| 1) Valid provided that leads at a distance of 4mm from case are kept at ambient temperature | | | | |

## ELECTRICAL CHARACTERISTICS

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

| | | Symbols | Min. | Typ. | Max. | Units |
|---|---|---|---|---|---|---|
| Reverse breakover voltage at $I_R$= 10 A | 1N5711<br>1N6263 | $V_R$<br>$V_R$ | 70<br>60 | | | V<br>V |
| Leakage current at $V_R$= 50V | | $I_R$ | | | 200 | nA |
| Forward voltage drop at $I_F$= 1mA<br>$I_F$= 15mA | | $V_F$<br>$V_F$ | | | 0.41<br>1.0 | V<br>V |
| Junction Capacitance at $V_R$= 0V,f= 1MHz | | $C_J$ | | | 2.0 | pF |
| Reverse Recovery time at $I_F$=$I_R$ = 5mA,recover to 0.1 $I_R$ | | $t_{rr}$ | | | 1 | ns |
| Thermal resistance | | $R_{JA}$ | | | 0.3 | K/mW |

# RATINFS AND CHARACTERISTICS CURVES 1N5711 THUR 1N6263

Fig.1 Typical variation of fwd. current vs forward. voltage for primary conduction through the Schottky barrier

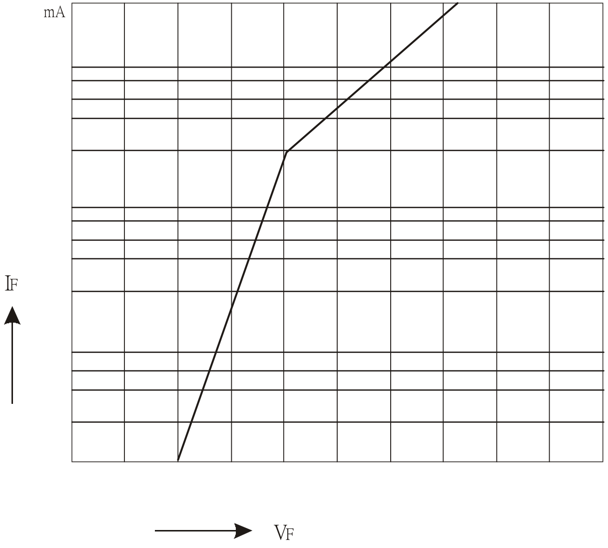


Fig.2 Typical forward conduction curve of combination Schottky barrier and PN junction guard ring

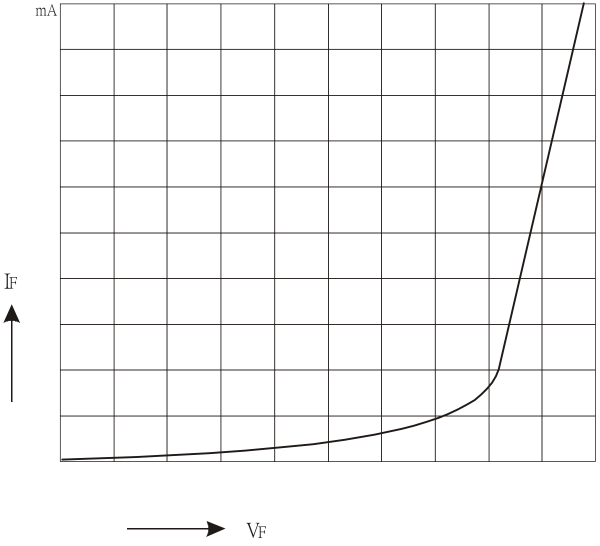


Fig.3 Typical variation of reverse current at various temperatures

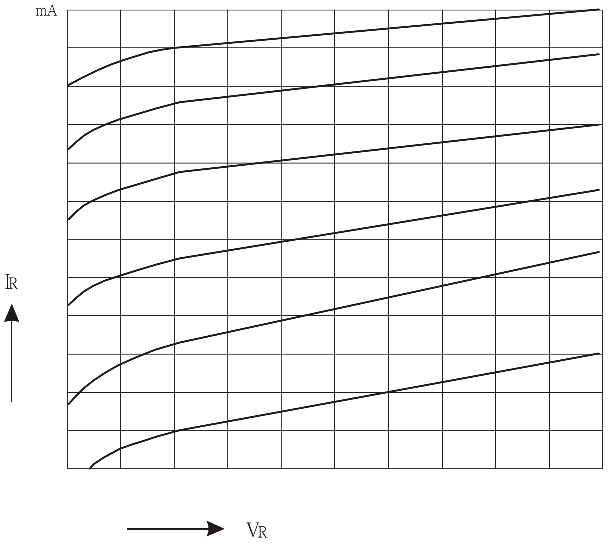


Fig.4 Typical capacitance curve as a function of reverse voltage