

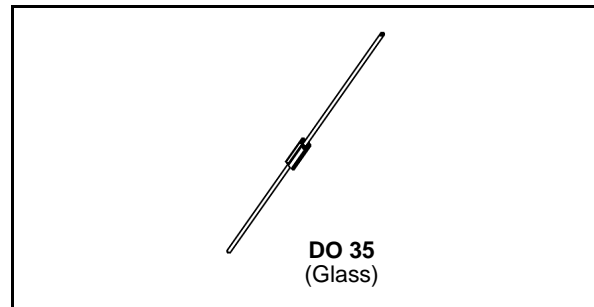


1N 5711

SMALL SIGNAL SCHOTTKY DIODE

DESCRIPTION

Metal to silicon junction diode featuring high break-down, low turn-on voltage and ultrafast switching. Primarily intended for high level UHF/VHF detection and pulse application with broad dynamic range. Matched batches are available on request.



ABSOLUTE RATINGS (limiting values)

| Symbol | Parameter | Value | Unit |
|--------------------|--|---------------------------------|------------------|
| V_{RRM} | Repetitive Peak Reverse Voltage | 70 | V |
| I_F | Forward Continuous Current* | $T_a = 25^\circ\text{C}$ 15 | mA |
| P_{tot} | Power Dissipation* | $T_a = 25^\circ\text{C}$ 430 | mW |
| T_{stg} T_j | Storage and Junction Temperature Range | - 65 to 200 - 65 to 200 | $^\circ\text{C}$ |
| T_L | Maximum Lead Temperature for Soldering during 10s at 4mm from Case | 230 | $^\circ\text{C}$ |

THERMAL RESISTANCE

| Symbol | Test Conditions | Value | Unit |
|---------------|-------------------|-------|---------------------------|
| $R_{th(j-a)}$ | Junction-ambient* | 400 | $^\circ\text{C}/\text{W}$ |

ELECTRICAL CHARACTERISTICS

STATIC CHARACTERISTICS

| Symbol | Test Conditions | Min. | Typ. | Max. | Unit |
|------------|---|------|------|------|---------------|
| V_{BR} | $T_{amb} = 25^\circ\text{C}$ $I_R = 10\mu\text{A}$ | 70 | | | V |
| V_F^{**} | $T_{amb} = 25^\circ\text{C}$ $I_F = 1\text{mA}$ | | | 0.41 | V |
| | $T_{amb} = 25^\circ\text{C}$ $I_F = 15\text{mA}$ | | | 1 | |
| I_R^{**} | $T_{amb} = 25^\circ\text{C}$ $V_R = 50\text{V}$ | | | 0.2 | μA |

DYNAMIC CHARACTERISTICS

| Symbol | Test Conditions | Min. | Typ. | Max. | Unit |
|--------|--|------|------|------|------|
| C | $T_{amb} = 25^\circ\text{C}$ $V_R = 0\text{V}$ $f = 1\text{MHz}$ | | | 2 | pF |
| τ | $T_{amb} = 25^\circ\text{C}$ $I_F = 5\text{mA}$ Krakauer Method | | | 100 | ps |

* On infinite heatsink with 4mm lead length

** Pulse test: $t_p \leq 300\mu\text{s}$ $\delta < 2\%$.

Matched batches available on request. Test conditions (forward voltage and/or capacitance) according to customer specification.

Figure 1. Forward current versus forward voltage at low level (typical values).

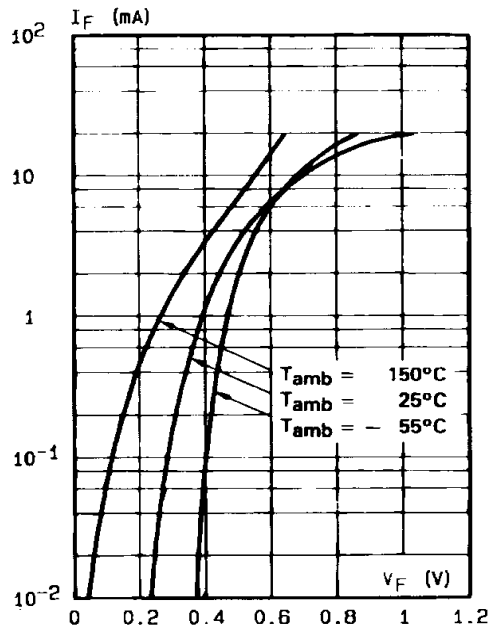


Figure 2. Capacitance C versus reverse applied voltage V_R (typical values).

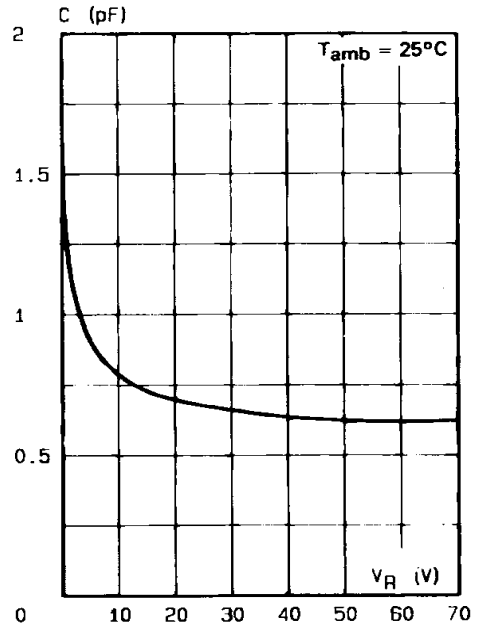


Figure 3. Reverse current versus ambient temperature.

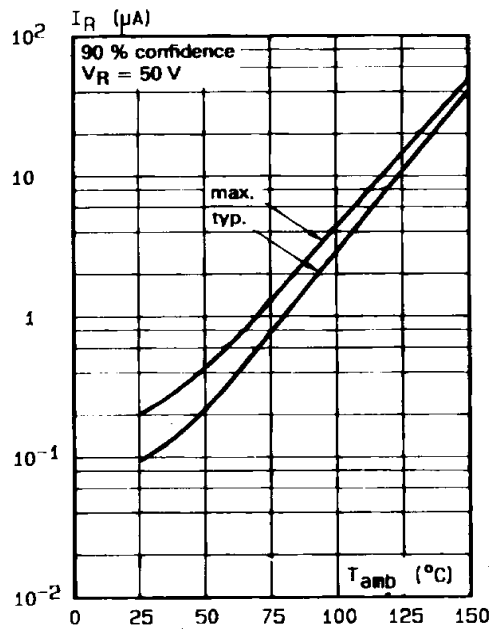
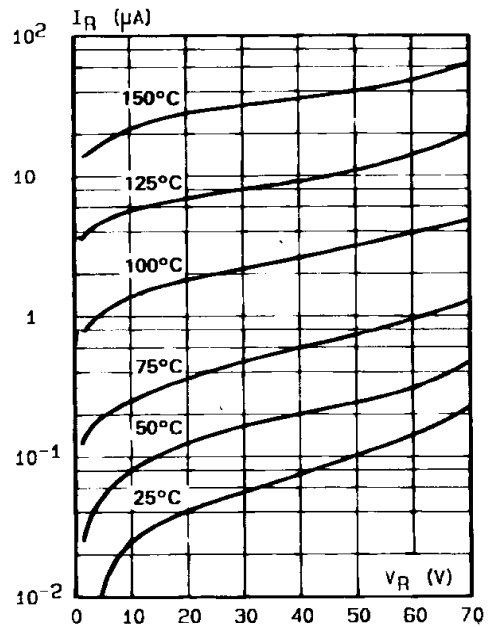
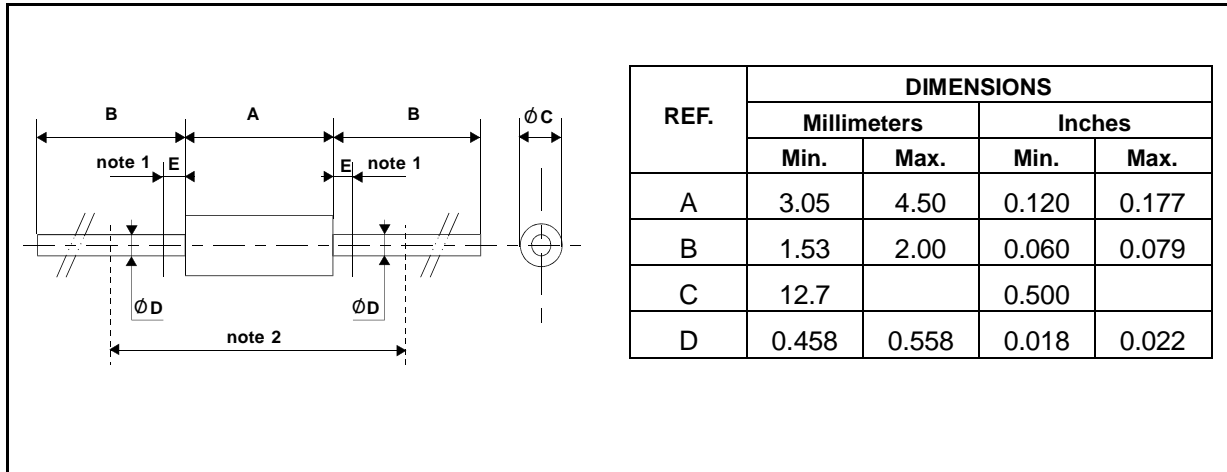


Figure 4. Reverse current versus continuous reverse voltage (typical values).



PACKAGE MECHANICAL DATA

DO 35 Glass



Cooling method : by convection and conduction
 Marking: clear, ring at cathode end.
 Weight: 0.15g

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