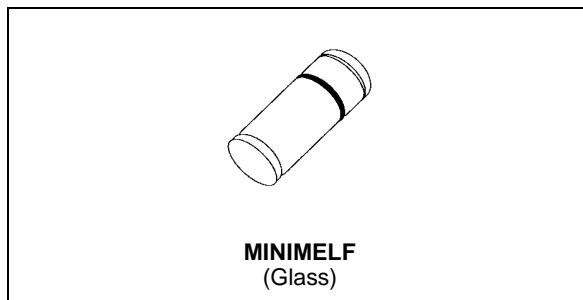


SMALL SIGNAL SCHOTTKY DIODE

DESCRIPTION

Metal to silicon junction diode primarily intended for UHF mixers and ultrafast switching applications.



ABSOLUTE MAXIMUM RATINGS (limiting values)

Symbol	Parameter		Value	Unit
V_{RRM}	Repetitive Peak Reverse Voltage		5	V
I_F	Forward Continuous Current	$T_i = 25^\circ\text{C}$	30	mA
I_{FSM}	Surge non Repetitive Forward Current	$t_p \leq 1\text{s}$	60	mA
T_{stg} T_j	Storage and Junction Temperature Range		- 65 to +150 - 65 to +125	$^\circ\text{C}$ $^\circ\text{C}$
T_L	Maximum Temperature for Soldering during 15s		260	$^\circ\text{C}$

THERMAL RESISTANCE

Symbol	Test Conditions	Value	Unit
$R_{th(j-l)}$	Junction-leads	400	$^\circ\text{C/W}$

ELECTRICAL CHARACTERISTICS

STATIC CHARACTERISTICS

Symbol	Test Conditions		Min.	Typ.	Max.	Unit
V_{BR}	$T_{amb} = 25^\circ\text{C}$	$I_R = 100\mu\text{A}$	5			V
$V_F (1)$	$T_{amb} = 25^\circ\text{C}$	$I_F = 10\text{mA}$			0.55	V
$I_R (1)$	$T_{amb} = 25^\circ\text{C}$	$V_R = 1\text{V}$			0.05	μA

DYNAMIC CHARACTERISTICS

Symbol	Test Conditions		Min.	Typ.	Max.	Unit
C	$T_{amb} = 25^\circ\text{C}$	$V_R = 0\text{V}$ $f = 1\text{GHz}$			1	pF
Qs (2)	$T_{amb} = 25^\circ\text{C}$	$I_F = 10\text{mA}$			3	pC
F (3)	$T_{amb} = 25^\circ\text{C}$	$f = 1\text{GHz}$		6	7	dB

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

(2) Measured on B-line Electronics QS-3 stored charge meter.

(3) Noise figure test :

- diode is inserted in a tuned stripline circuit
- local oscillator frequency 1GHz
- local oscillator power 1mW

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

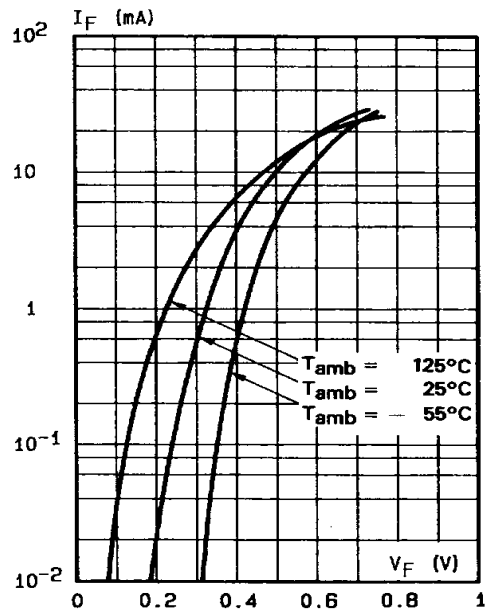


Figure 2. Capacitance C versus reverse applied voltage V_R (typical values).

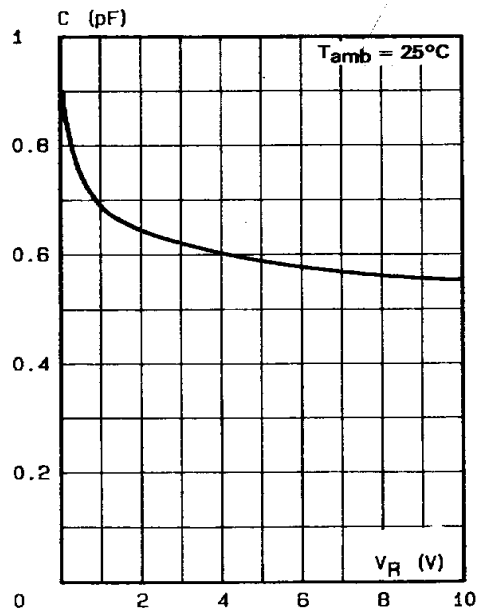


Figure 3. Reverse current versus ambient temperature.

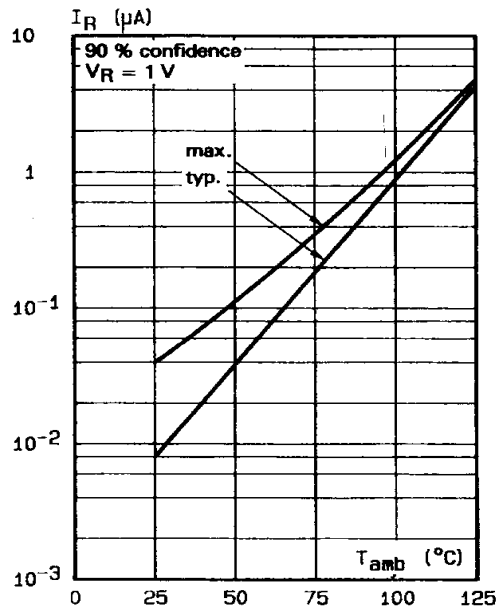
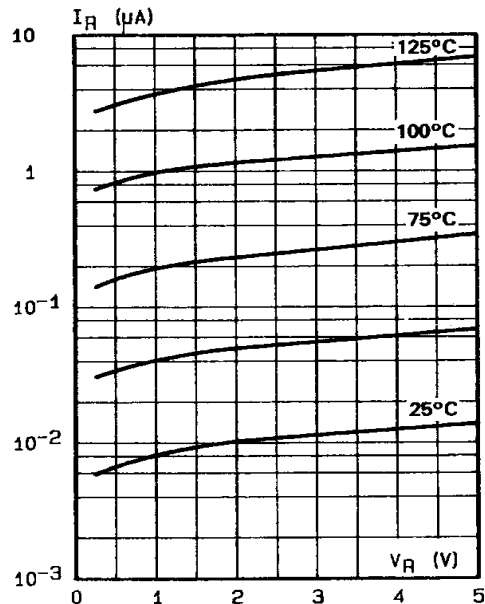


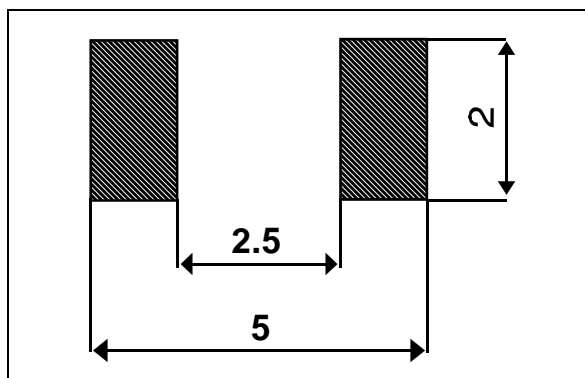
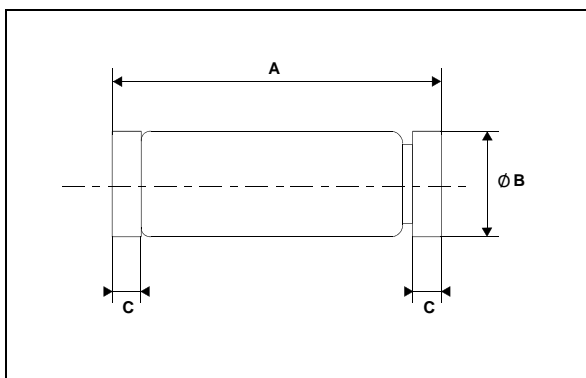
Figure 4. Reverse current versus continuous reverse voltage (typical values).



PACKAGE MECHANICAL DATA

FOOT PRINT DIMENSIONS (Millimeter)

MINIMELF Glass



REF.	DIMENSIONS			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	3.3	3.6	0.130	0.142
B	1.59	1.62	0.063	0.064
C	0.4	0.5	0.016	0.020

Marking: ring at cathode end.
Weight: 0.05g

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