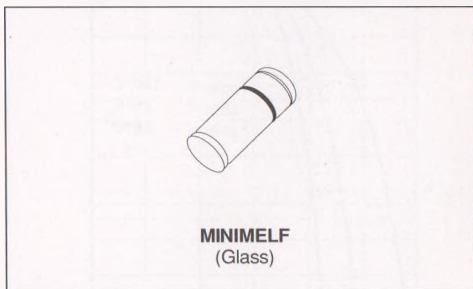


SMALL SIGNAL SCHOTTKY DIODE

DESCRIPTION

Metal to silicon junction diode featuring high breakdown voltage, low turn-on voltage and ultrafast switching.

Primarily intended for high level UHF/VHF detection and pulse application with broad dynamic range.



ABSOLUTE RATINGS (limiting values)

Symbol	Parameter		Value	Unit
V_{RRM}	Repetitive Peak Reverse Voltage		20	V
I_F	Forward Continuous Current	$T_I = 25^\circ\text{C}$	35	mA
P_{tot}	Power Dissipation	$T_I = 25^\circ\text{C}$	430	mW
T_{stg} T_j	Storage and Junction Temperature Range		- 65 to 200	$^\circ\text{C}$
T_L	Maximum Temperature for Soldering during 15s		260	$^\circ\text{C}$

THERMAL RESISTANCE

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

ELECTRICAL CHARACTERISTICS

STATIC CHARACTERISTICS

Symbol	Test Conditions		Min.	Typ.	Max.	Unit
$V_{(BR)}$	$T_{amb} = 25^\circ\text{C}$	$I_R = 10\mu\text{A}$	20			V
V_F^*	$T_{amb} = 25^\circ\text{C}$	$I_F = 1\text{mA}$			0.41	V
	$T_{amb} = 25^\circ\text{C}$	$I_F = 35\text{mA}$			1	
I_R^*	$T_{amb} = 25^\circ\text{C}$	$V_R = 15\text{V}$			0.1	μA

DYNAMIC CHARACTERISTICS

Symbol	Test Conditions			Min.	Typ.	Max.	Unit
C	$T_{amb} = 25^\circ\text{C}$	$V_R = 0\text{V}$	$f = 1\text{MHz}$			1.2	pF
τ	$T_{amb} = 25^\circ\text{C}$	$I_F = 5\text{mA}$	Krakauer Method			100	ps

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

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

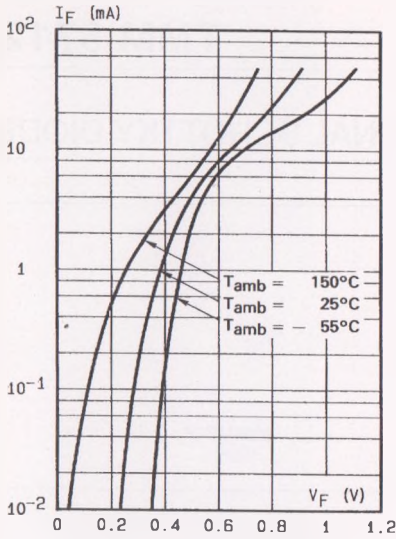


Fig.1 - Forward current versus forward voltage at different temperatures (typical values).

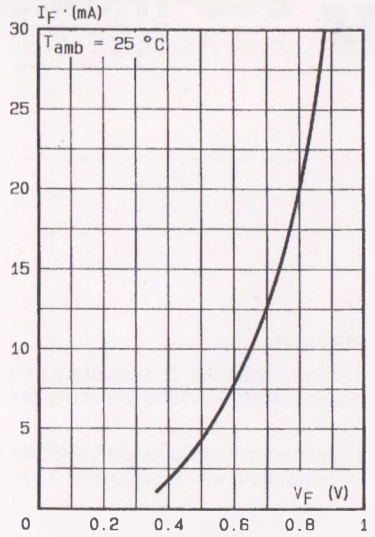


Fig.2 - Forward current versus forward voltage (typical values).

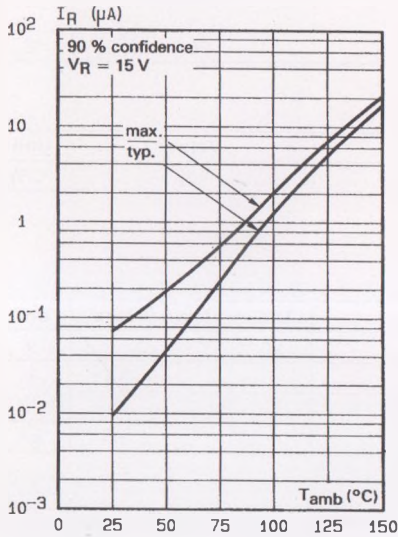


Fig.3 - Reverse current versus ambient temperature.

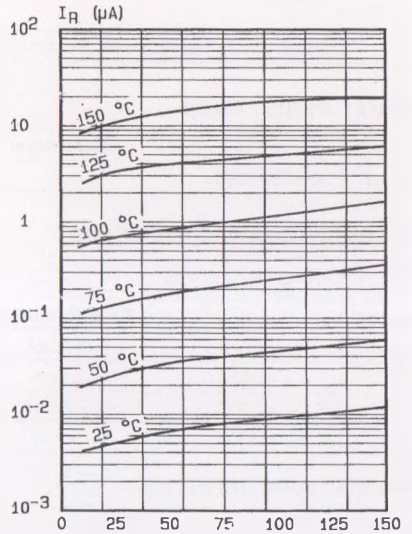


Fig.4 - Reverse current versus continuous reverse voltage (typical values).

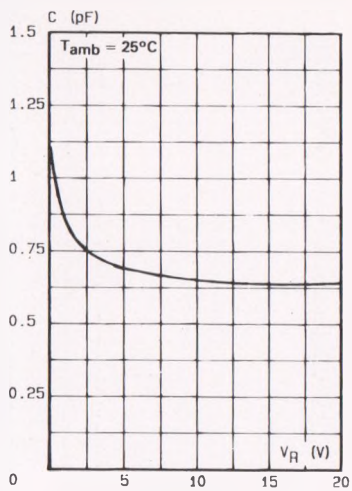


Fig.5 - Capacitance C versus reverse applied voltage V_R (typical values).