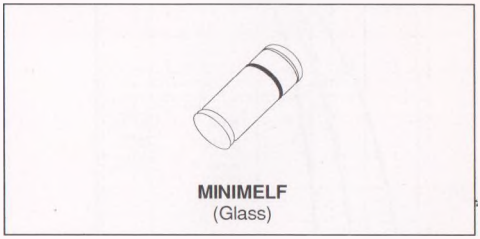
SGS-THOMSON MICROELECTRONICS

TMMBAR 28

SMALL SIGNAL SCHOTTKY DIODE



MINIMELF
(Glass)

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_l = 25°C	15	mA
I_{FSM}	Surge non Repetitive Forward Current	$t_p \leq 1s$	50	mA
T_{stg} T_j	Storage and Junction Temperature Range		– 65 to 200	°C
T_L	Maximum Temperature for Soldering during 15s		260	°C

THERMAL RESISTANCE

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

ELECTRICAL CHARACTERISTICS

STATIC CHARACTERISTICS

Symbol	Test Conditions		Min.	Typ.	Max.	Unit
$V_{(BR)}$	T_{amb} = 25°C	I_R = 10µA	70			V
V_F*	T_{amb} = 25°C	I_F = 1mA			0.41	V
	T_{amb} = 25°C	I_F = 15mA			1	
I_R*	T_{amb} = 25°C	V_R = 50V			0.2	µA

DYNAMIC CHARACTERISTICS

Symbol	Test Conditions			Min.	Typ.	Max.	Unit
C	T_{amb} = 25°C	V_R = 0V	f = 1MHz			2	pF
τ	T_{amb} = 25°C	I_F = 5mA	Krakauer Method			100	ps

* Pulse test : $t_p \leq 300\mu s$ $\delta < 2\%$.
Matched batches available on request. Test conditions (forward voltage and/or capacitance) according to customer specification.

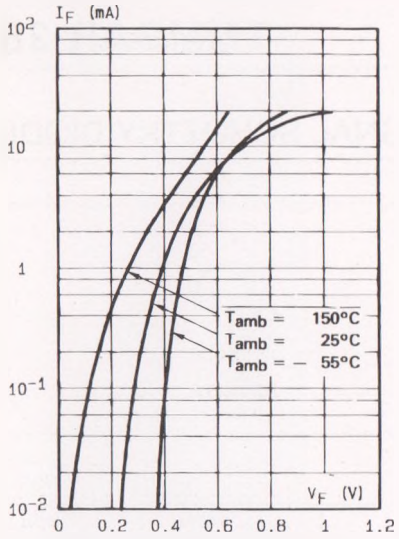


Fig.1 Forward current versus forward voltage at low level (typical values).

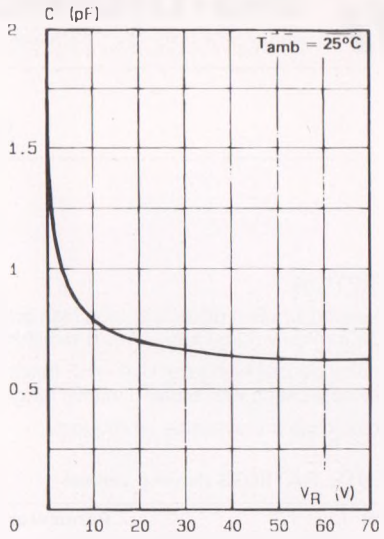


Fig.2 - Capacitance C versus reverse applied voltage V_R (typical values).

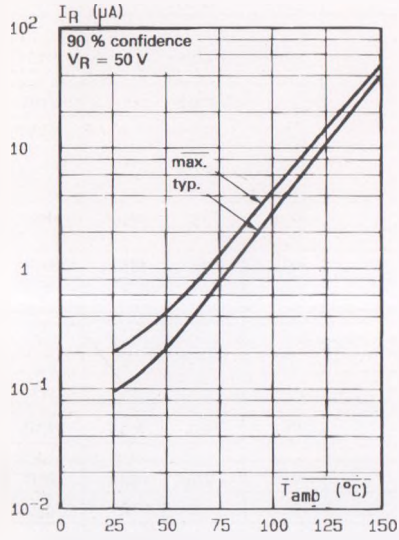


Fig.3 - Reverse current versus ambient temperature.

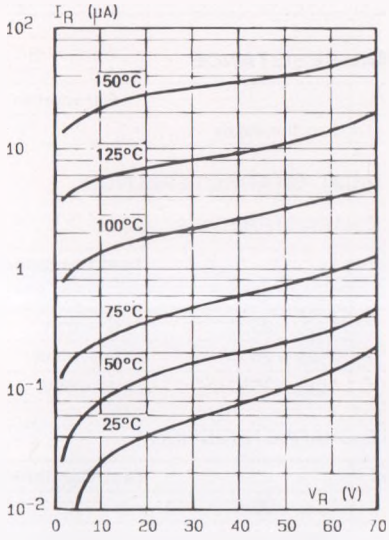


Fig.4 - Reverse current versus continuous reverse voltage (typical values).