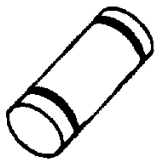
SGS-THOMSON MICROELECTRONICS

TMM5711

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 MAXIMUM RATINGS (limiting values)

Symbol	Parameter		Value	Unit
V_{RRM}	Repetitive Peak Reverse Voltage		70	V
I_F	Forward Continuous Current	T_i = 25 °C	15	mA
P_{tot}	Power Dissipation	T_i = 25 °C	430	mW
T_{stg} T_j	Storage and Junction Temperature Range		- 65 to 200 -65 to 200	°C
T_L	Maximum Temperature for Soldering during 15s		260	°C

THERMAL RESISTANCE

Symbol	Test Conditions	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).

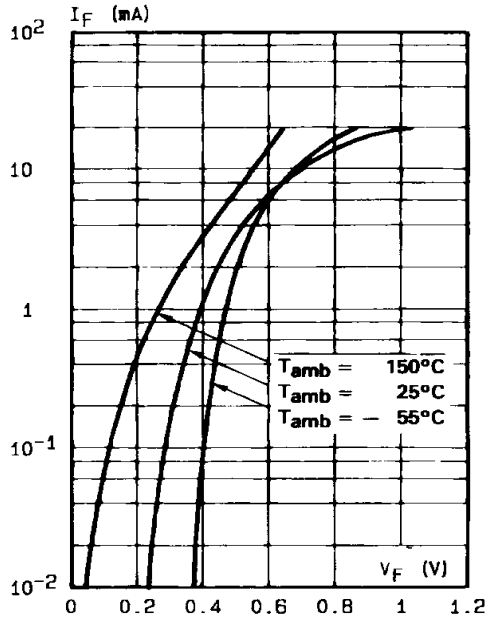


Fig.2 : Capacitance C versus reverse applied voltage V_R (typical values).

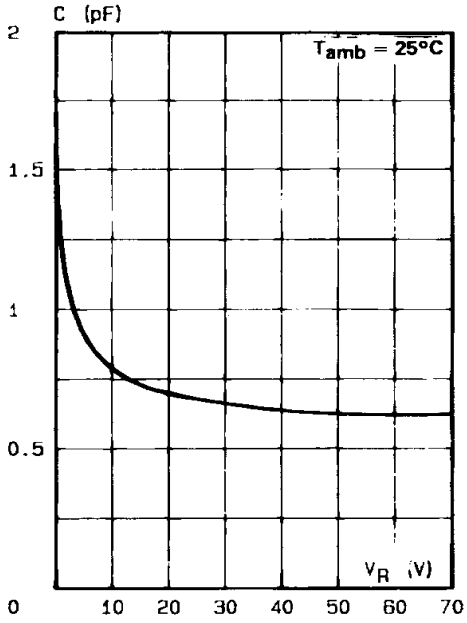


Fig.3 : Reverse current versus ambient temperature.

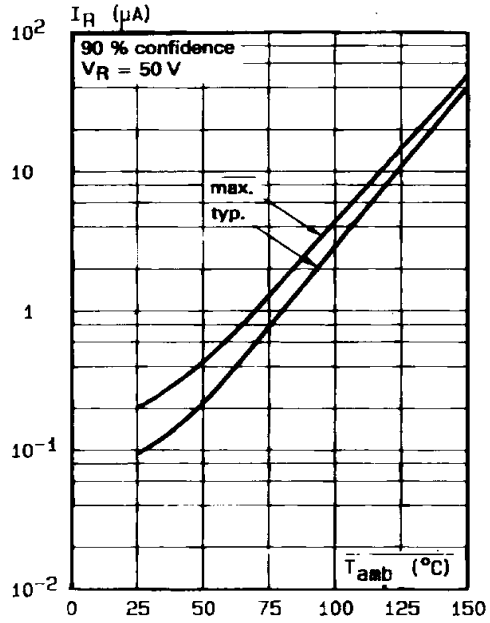
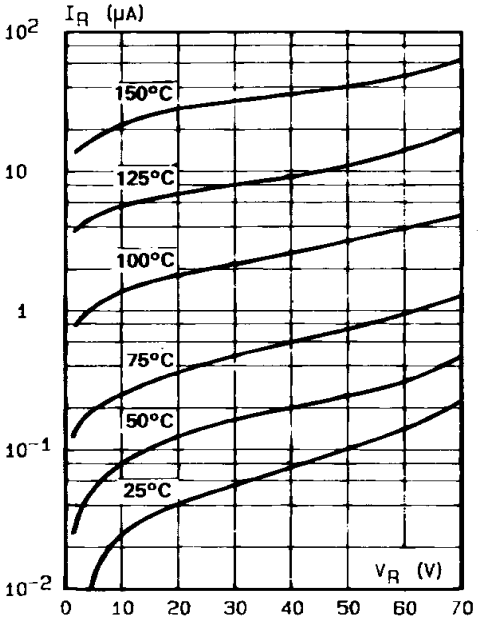
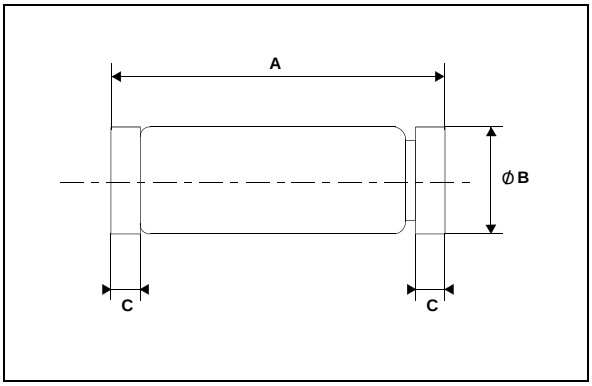


Fig.4 : Reverse current versus continuous reverse voltage (typical values).



PACKAGE MECHANICAL DATA

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

FOOT PRINT DIMENSIONS (Millimeter)