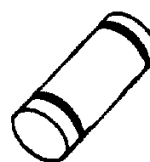


SMALL SIGNAL SCHOTTKY DIODE

DESCRIPTION

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

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



MINIMELF
(Glass)

ABSOLUTE MAXIMUM 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 - 65 to 200	$^\circ\text{C}$
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}	$T_{amb} = 25^\circ\text{C}$	$I_R = 10\mu\text{A}$	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: $t_p \leq 300\mu\text{s}$ $\delta < 2\%$.

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

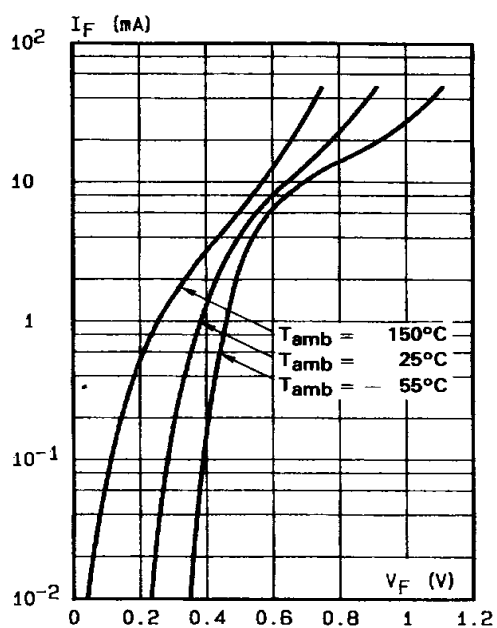
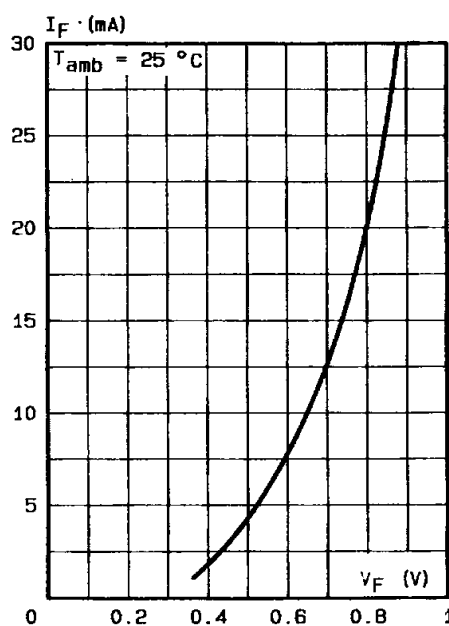
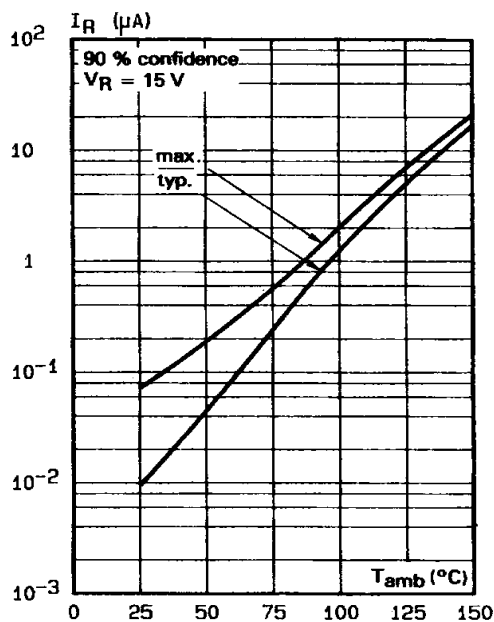
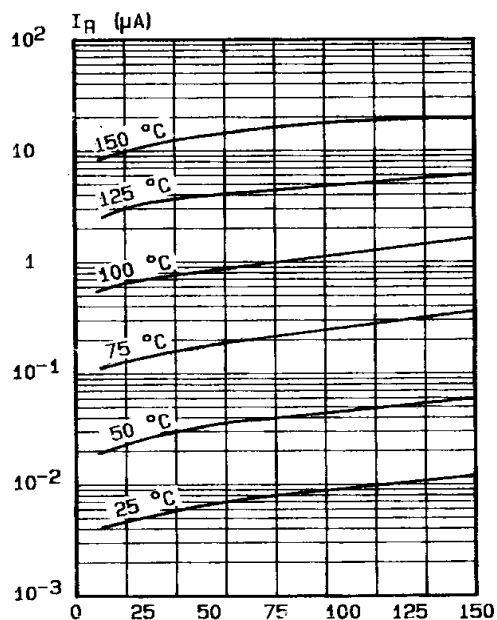
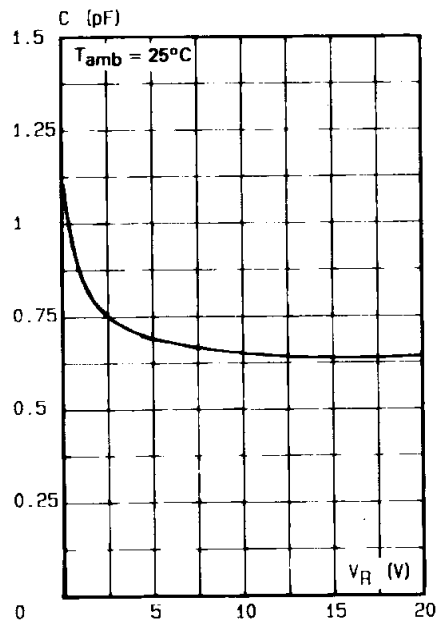
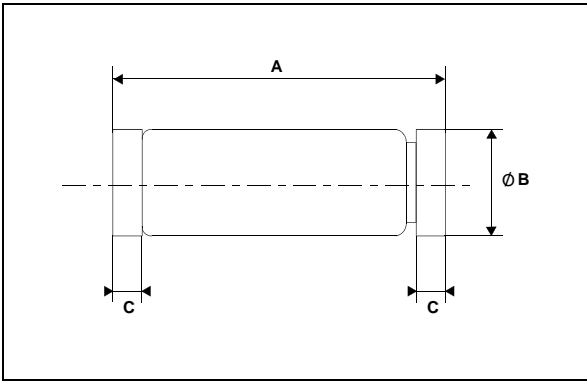
Fig.1 : Forward current versus forward voltage at different temperatures (typical values)**Fig.2** : Forward current versus forward voltage (typical values).**Fig.3** : Reverse current versus ambient temperature.**Fig.4** : Reverse current versus continuous reverse voltage (typical values).

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

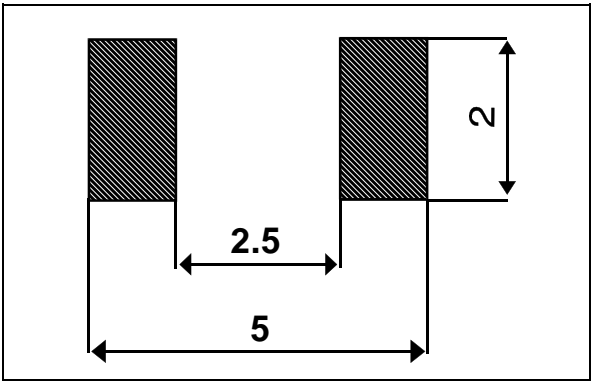


PACKAGE MECHANICAL DATA

MINIMELF Glass



FOOT PRINT DIMENSIONS (Millimeter)



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

Information furnished is believed to be accurate and reliable. However, SGS-THOMSON Microelectronics assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of SGS-THOMSON Microelectronics. Specifications mentioned in this publication are subject to change without notice. This publication supersedes and replaces all information previously supplied. SGS-THOMSON Microelectronics products are not authorized for use as critical components in life support devices or systems without express written approval of SGS-THOMSON Microelectronics.

© 1994 SGS-THOMSON Microelectronics - Printed in Italy - All rights reserved.

SGS-THOMSON Microelectronics GROUP OF COMPANIES

Australia - Brazil - France - Germany - Hong Kong - Italy - Japan - Korea - Malaysia - Malta - Morocco - The Netherlands
Singapore - Spain - Sweden - Switzerland - Taiwan - United Kingdom - U.S.A.