

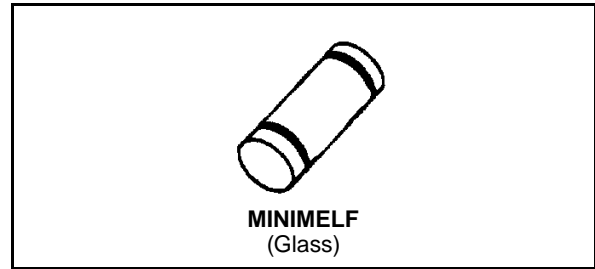


TMMBAT 41

SMALL SIGNAL SCHOTTKY DIODE

DESCRIPTION

General purpose metal to silicon diode featuring very low turn-on voltage and fast switching. This device has integrated protection against excessive voltage such as electrostatic discharges.



ABSOLUTE RATINGS (limiting values)

Symbol	Parameter	Value	Unit
V_{RRM}	Repetitive Peak Reverse Voltage	100	V
I_F	Forward Continuous Current	$T_i = 25\text{ }^\circ\text{C}$	100 mA
I_{FRM}	Repetitive Peak Forward Current	$t_p \leq 1\text{ s}$ $\delta \leq 0.5$	350 mA
I_{FSM}	Surge non Repetitive Forward Current	$t_p = 10\text{ ms}$	750 mA
P_{tot}	Power Dissipation	$T_i = 95\text{ }^\circ\text{C}$	100 mW
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	300	$^\circ\text{C/W}$

ELECTRICAL CHARACTERISTICS

STATIC CHARACTERISTICS

Symbol	Test Conditions	Min.	Typ.	Max.	Unit
V_{BR}	$T_j = 25\text{ }^\circ\text{C}$ $I_R = 100\text{ }\mu\text{A}$	100			V
V_F^*	$T_j = 25\text{ }^\circ\text{C}$ $I_F = 1\text{ mA}$		0.4	0.45	V
	$T_j = 25\text{ }^\circ\text{C}$ $I_F = 200\text{ mA}$			1	
I_R^*	$T_j = 25\text{ }^\circ\text{C}$			0.1	μA
	$T_j = 100\text{ }^\circ\text{C}$			20	

DYNAMIC CHARACTERISTICS

Symbol	Test Conditions	Min.	Typ.	Max.	Unit
C	$T_j = 25\text{ }^\circ\text{C}$ $V_R = 1\text{ V}$ $f = 1\text{ MHz}$		2		pF

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

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

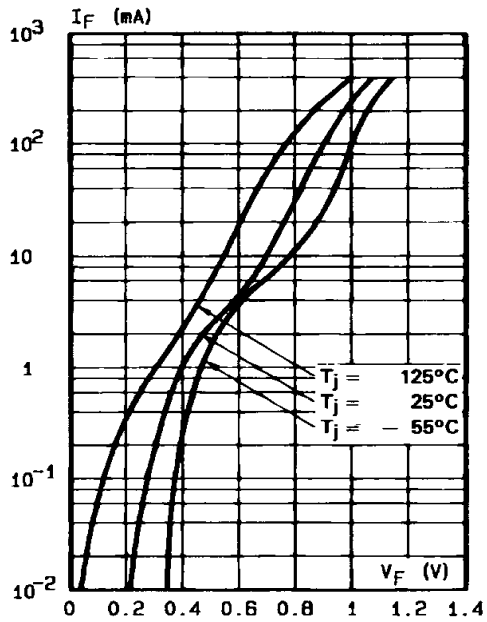


Figure 2. Forward current versus forward voltage (typical values).

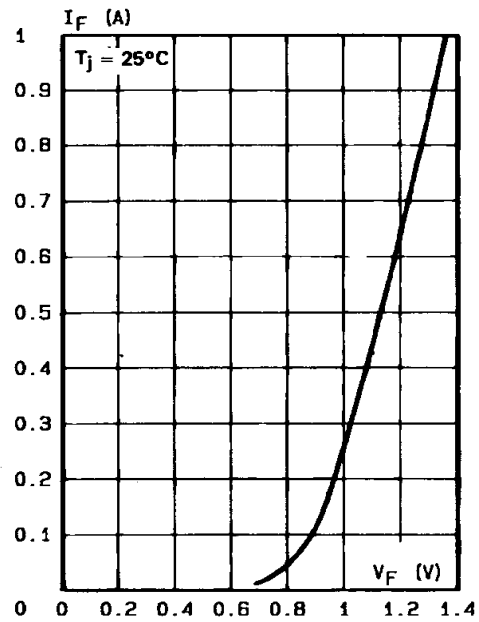


Figure 3. Reverse current versus junction temperature.

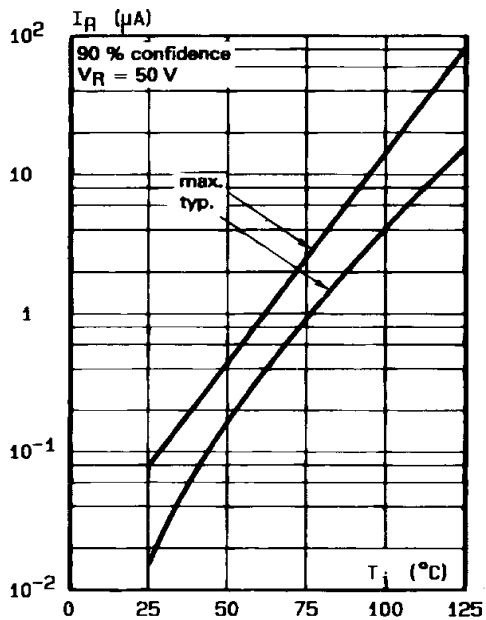


Figure 4. Reverse current versus continuous reverse voltage (typical values).

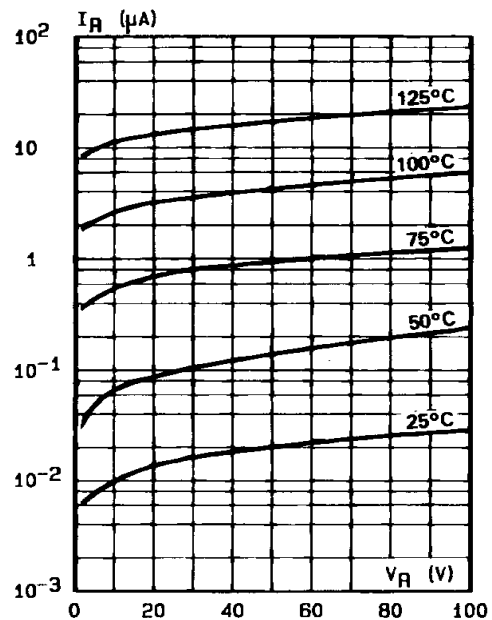
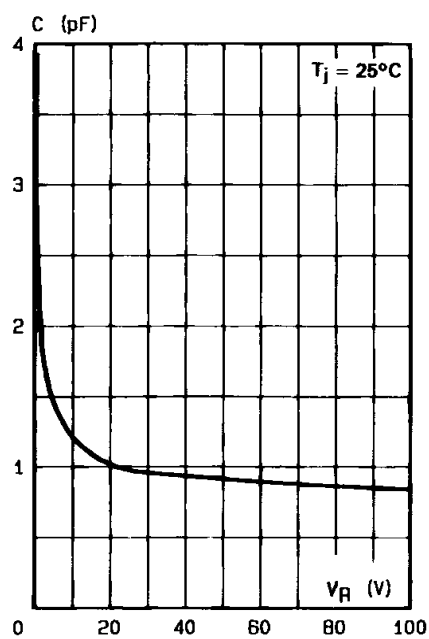


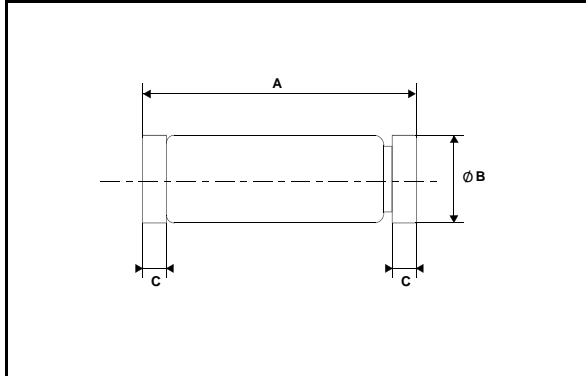
Figure 5. Capacitance C versus reverse applied voltage V_R (typical values).



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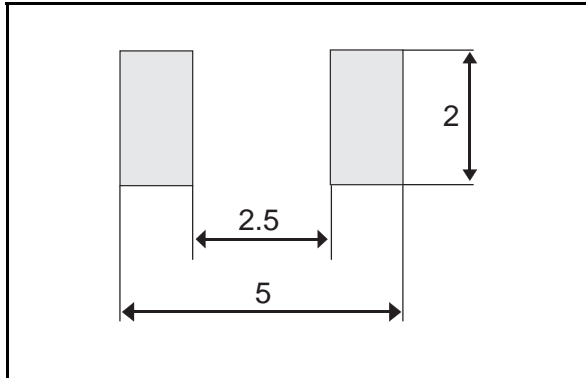
PACKAGE MECHANICAL DATA

MINIMELF Glass



REF.	DIMENSIONS					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	3.30	3.40	3.6	0.130	0.134	0.142
B	1.59	1.60	1.62	0.063	0.063	0.064
C	0.40	0.45	0.50	0.016	0.018	0.020
D		1.50			0.059	

FOOT PRINT DIMENSIONS (Millimeter)



Marking: ring at cathode end.
Weight: 0.05g

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