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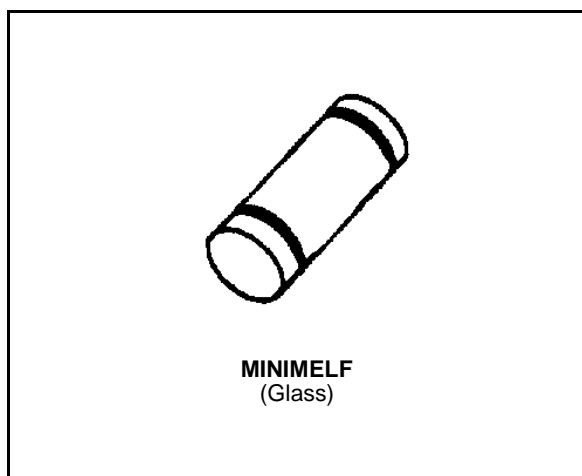
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## TMMBAT 46

### SMALL SIGNAL SCHOTTKY DIODE



#### DESCRIPTION

General purpose, metal to silicon diode featuring high breakdown voltage low turn-on voltage.

#### ABSOLUTE RATINGS (limiting values)

Symbol	Parameter		Value	Unit
$V_{RRM}$	Repetitive Peak Reverse Voltage		100	V
$I_F$	Forward Continuous Current	$T_I = 25\text{ }^\circ\text{C}$	150	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	$T_I = 80\text{ }^\circ\text{C}$	150	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	$^\circ\text{C/W}$

**TMMBAT 46**

**ELECTRICAL CHARACTERISTICS**

STATIC CHARACTERISTICS

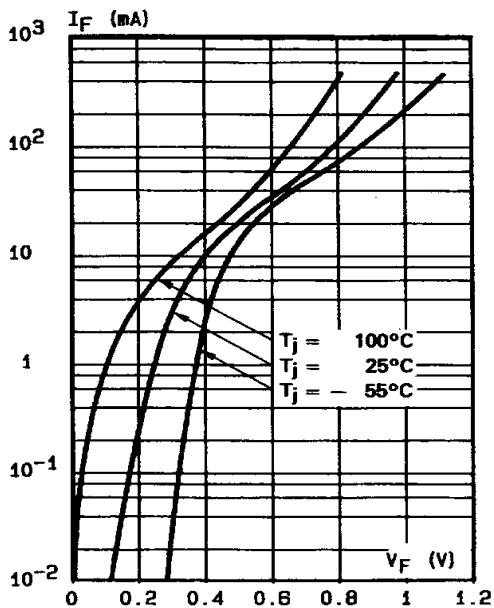
Symbol	Test Conditions		Min.	Typ.	Max.	Unit
$V_{BR}$	$T_j = 25^\circ\text{C}$	$I_R = 100\mu\text{A}$	100			V
$V_F^*$	$T_j = 25^\circ\text{C}$	$I_F = 0.1\text{mA}$			0.25	V
	$T_j = 25^\circ\text{C}$	$I_F = 10\text{mA}$			0.45	
	$T_j = 25^\circ\text{C}$	$I_F = 250\text{mA}$			1	
$I_R^*$	$T_j = 25^\circ\text{C}$	$V_R = 1.5\text{V}$			0.5	$\mu\text{A}$
	$T_j = 60^\circ\text{C}$				5	
	$T_j = 25^\circ\text{C}$	$V_R = 10\text{V}$			0.8	
	$T_j = 60^\circ\text{C}$				7.5	
	$T_j = 25^\circ\text{C}$	$V_R = 50\text{V}$			2	
	$T_j = 60^\circ\text{C}$				15	
	$T_j = 25^\circ\text{C}$	$V_R = 75\text{V}$			5	
	$T_j = 60^\circ\text{C}$				20	

DYNAMIC CHARACTERISTICS

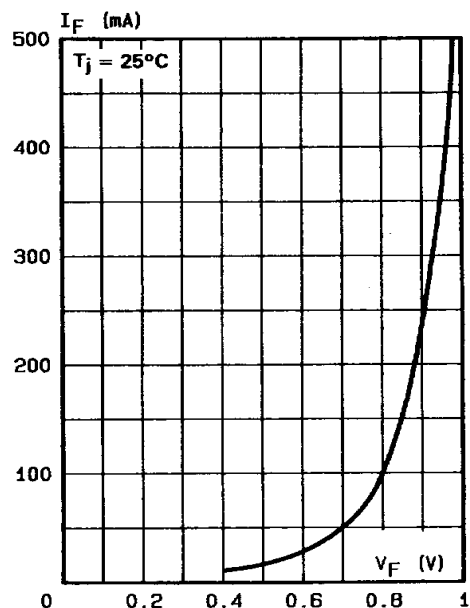
Symbol	Test Conditions		Min.	Typ.	Max.	Unit
C	$T_j = 25^\circ\text{C}$	$V_R = 0\text{V}$		10		pF
	$T_j = 25^\circ\text{C}$	$V_R = 1\text{V}$		6		

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

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

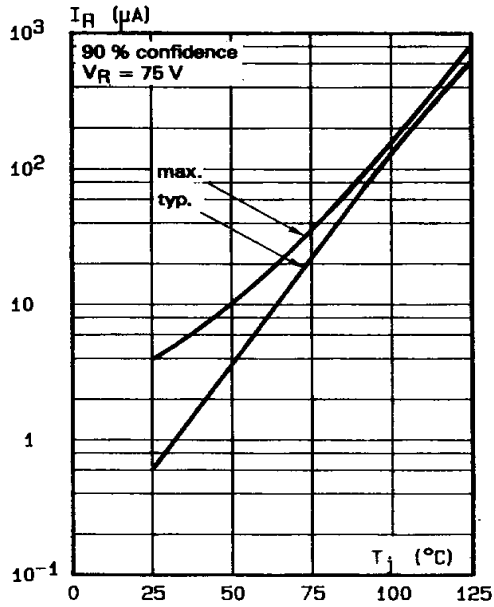


**Figure 2. Forward current versus forward voltage (typical values).**

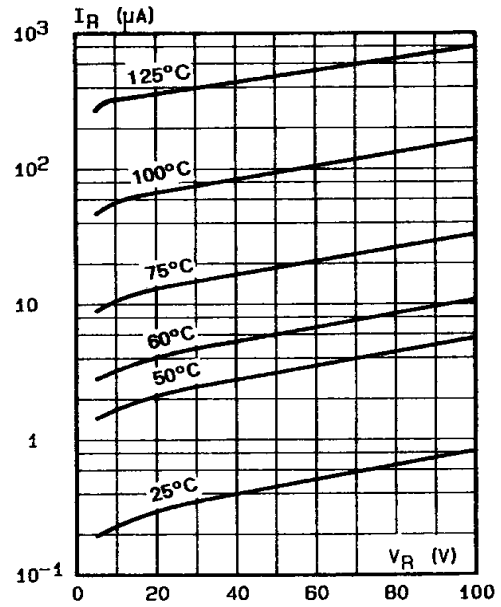


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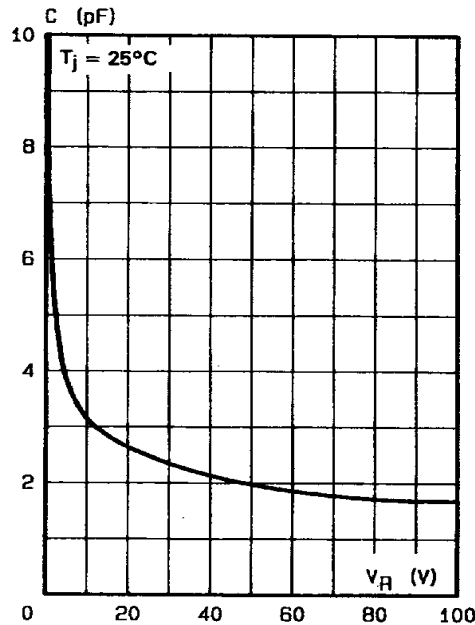
**Figure 3. Reverse current versus junction temperature (typical values).**



**Figure 4. Reverse current versus continuous reverse voltage.**



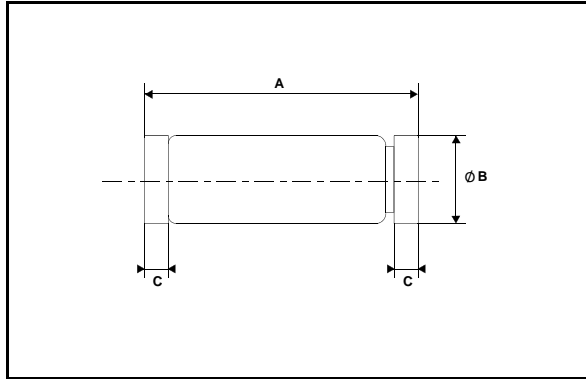
**Figure 5. Forward current versus forward voltage (typical values).**



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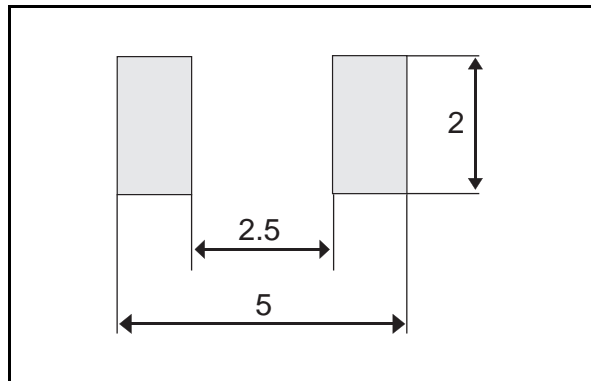
### PACKAGE MECHANICAL DATA

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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