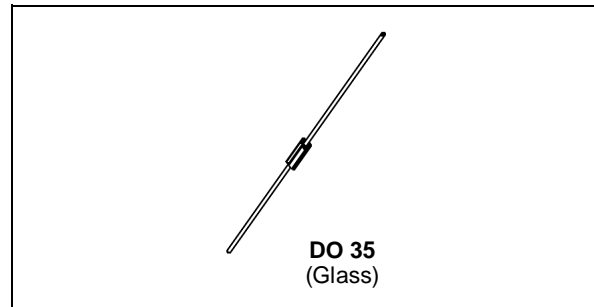


## SMALL SIGNAL SCHOTTKY DIODE

### 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*	$T_a = 25^\circ\text{C}$ 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*	$t_p \leq 10\text{ms}$ 750	mA
$P_{tot}$	Power Dissipation*	$T_a = 95^\circ\text{C}$ 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 Lead Temperature for Soldering during 10s at 4mm from Case	230	$^\circ\text{C}$

### THERMAL RESISTANCE

Symbol	Test Conditions	Value	Unit
$R_{th(j-a)}$	Junction-ambient*	300	$^\circ\text{C/W}$

### 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
$V_F^{**}$	$T_j = 25^\circ\text{C}$ $I_F = 1\text{mA}$		0.4	0.45	V
	$T_j = 25^\circ\text{C}$ $I_F = 200\text{mA}$			1	
$I_R^{**}$	$T_j = 25^\circ\text{C}$			0.1	$\mu\text{A}$
	$T_j = 100^\circ\text{C}$			20	

#### DYNAMIC CHARACTERISTICS

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

\* On infinite heatsink with 4mm lead length

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

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

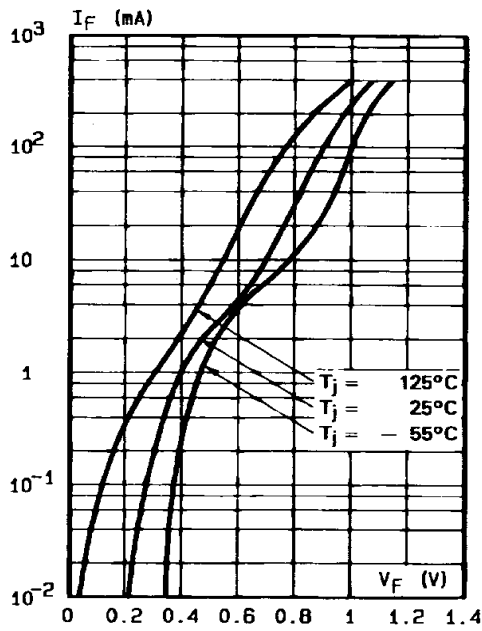


Figure 2. Forward current versus forward voltage (typical values).

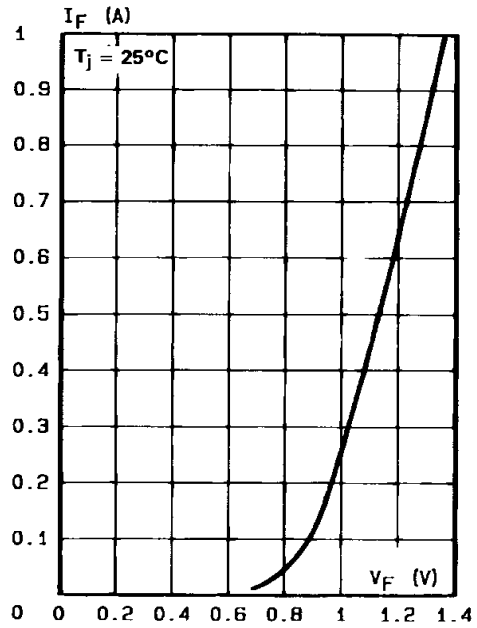


Figure 3. Reverse current versus junction temperature.

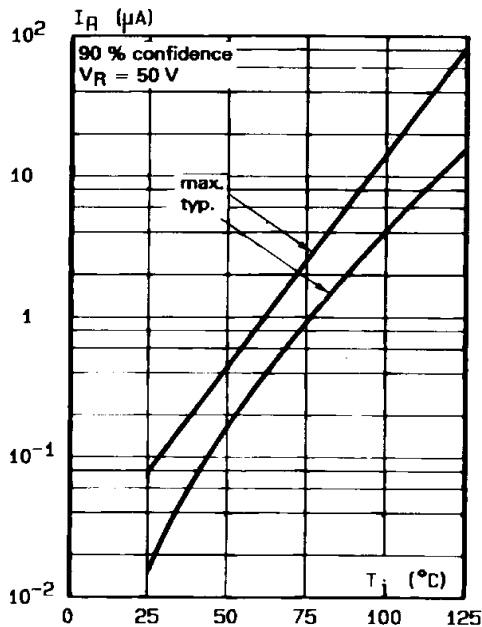


Figure 4. Reverse current versus continuous reverse voltage (typical values).

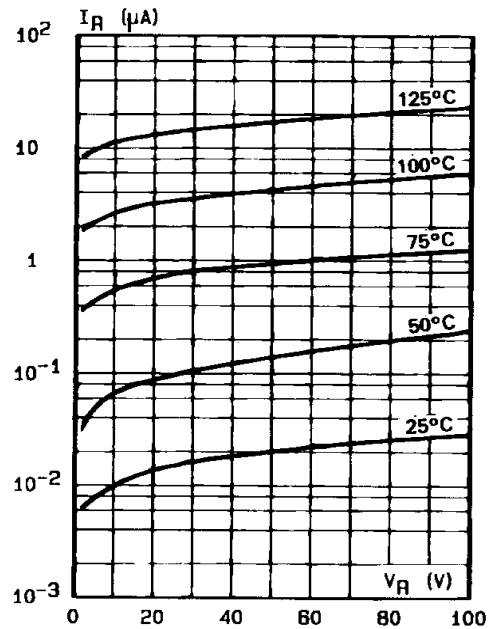
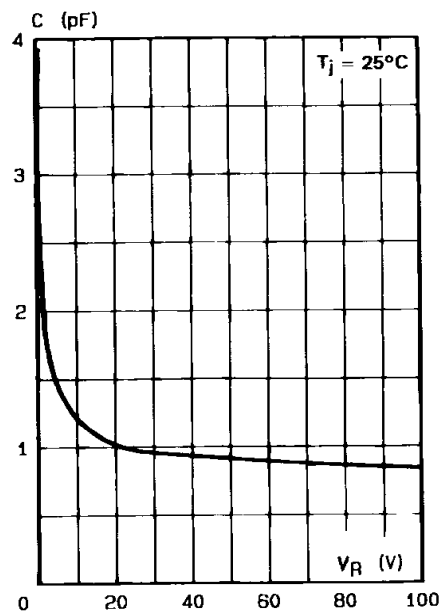


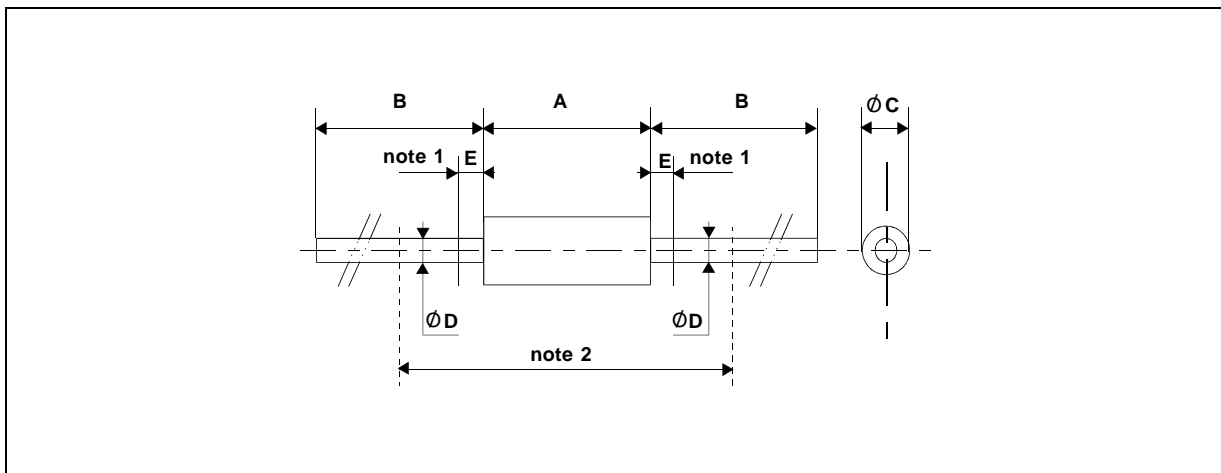
Figure 5. Capacitance  $C$  versus reverse applied voltage  $V_R$  (typical values).



# BAT 41

## PACKAGE MECHANICAL DATA

DO 35 Glass



REF.	DIMENSIONS				NOTES
	Millimeters		Inches		
	Min.	Max.	Min.	Max.	
A	3.050	4.500	0.120	0.117	1 - The lead diameter $\varnothing D$ is not controlled over zone E 2 - The minimum axial length within which the device may be placed with its leads bent at right angles is 0.59"(15 mm)
B	12.7		0.500		
$\varnothing C$	1.530	2.000	0.060	0.079	
$\varnothing D$	0.458	0.558	0.018	0.022	
E		1.27		0.050	

Cooling method : by convection and conduction  
 Marking: clear, ring at cathode end.  
 Weight: 0.15g

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