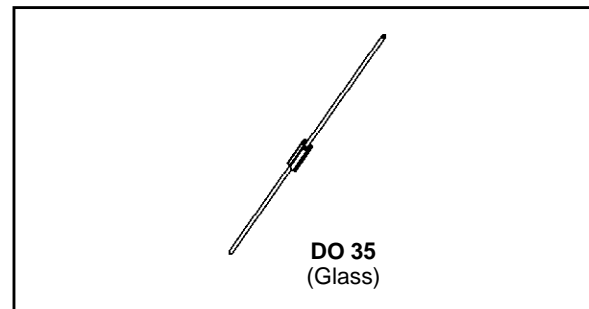


## SMALL SIGNAL SCHOTTKY DIODE

### 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 RATINGS (limiting values)

Symbol	Parameter	Value	Unit
$V_{RRM}$	Repetitive Peak Reverse Voltage	70	V
$I_F$	Forward Continuous Current*	$T_a = 25\text{ }^\circ\text{C}$ 15	mA
$I_{FSM}$	Surge non Repetitive Forward Current*	$t_p \leq 1\text{ s}$ 50	mA
$T_{stg}$ $T_j$	Storage and Junction Temperature Range	- 65 to 200 - 65 to 200	$^\circ\text{C}$
$T_L$	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*	400	$^\circ\text{C/W}$

### ELECTRICAL CHARACTERISTICS

#### STATIC CHARACTERISTICS

Symbol	Test Conditions		Min.	Typ.	Max.	Unit
$V_{BR}$	$T_{amb} = 25\text{ }^\circ\text{C}$	$I_R = 10\text{ }\mu\text{A}$	70			V
$V_F^{**}$	$T_{amb} = 25\text{ }^\circ\text{C}$	$I_F = 1\text{ mA}$			0.41	V
	$T_{amb} = 25\text{ }^\circ\text{C}$	$I_F = 15\text{ mA}$			1	
$I_R^{**}$	$T_{amb} = 25\text{ }^\circ\text{C}$	$V_R = 50\text{ V}$			0.2	$\mu\text{A}$

#### DYNAMIC CHARACTERISTICS

Symbol	Test Conditions			Min.	Typ.	Max.	Unit
C	$T_{amb} = 25\text{ }^\circ\text{C}$	$V_R = 0\text{ V}$	$f = 1\text{ MHz}$			2	pF
$\tau$	$T_{amb} = 25\text{ }^\circ\text{C}$	$I_F = 5\text{ mA}$	Krakauer Method			100	ps

\* On infinite heatsink with 4mm Lead length

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

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

Figure 1. Forward current versus forward voltage at low level (typical values).

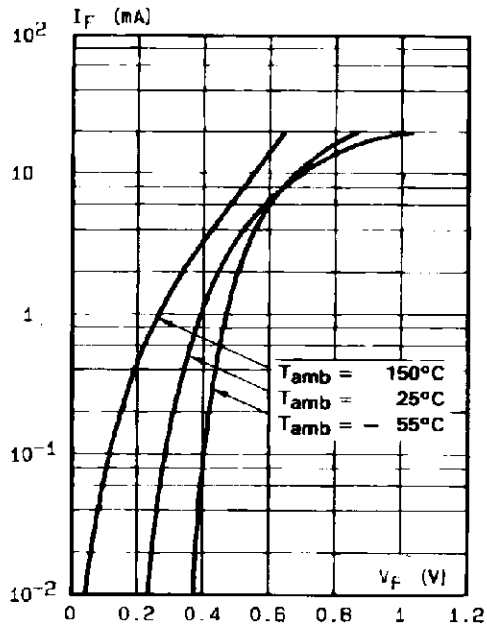


Figure 2. Capacitance C versus reverse applied voltage  $V_R$  (typical values).

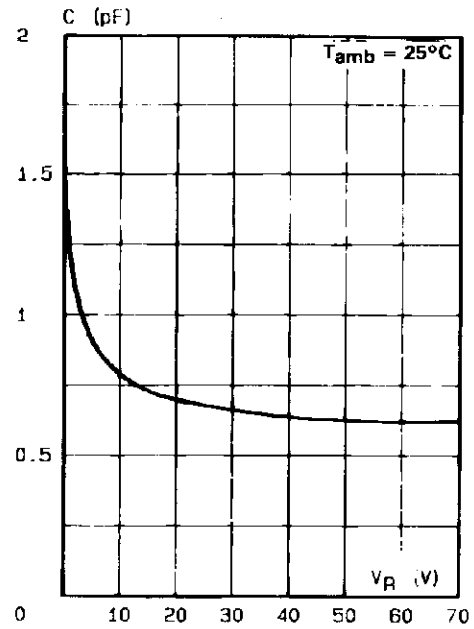


Figure 3. Reverse current versus ambient temperature.

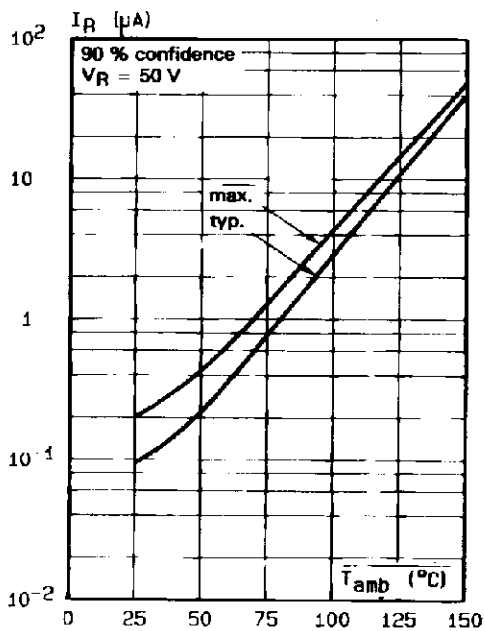
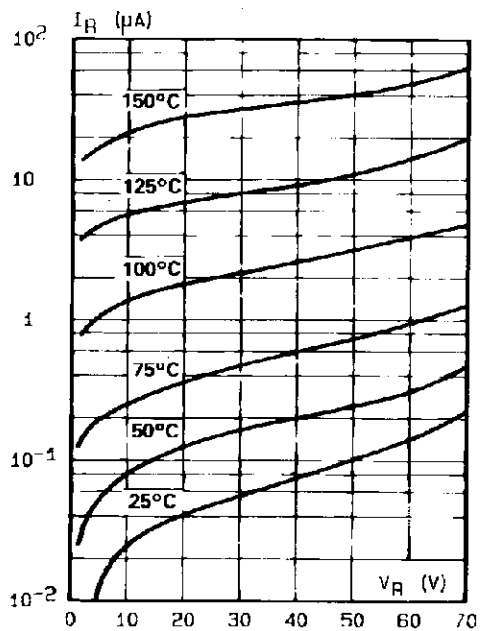
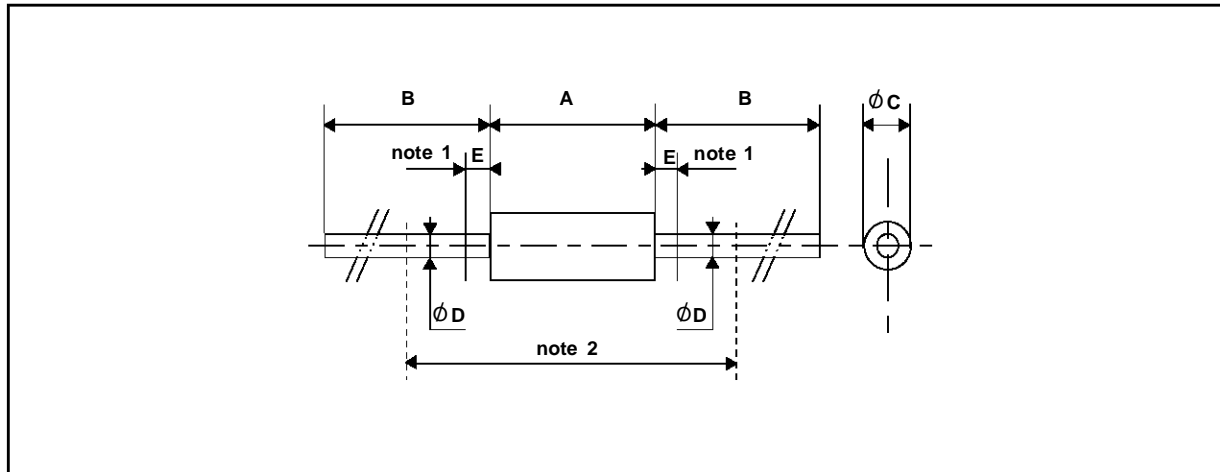


Figure 4. Reverse current versus continuous reverse voltage (typical values).



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 $\phi D$ 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		
$\phi C$	1.530	2.000	0.060	0.079	
$\phi D$	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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