

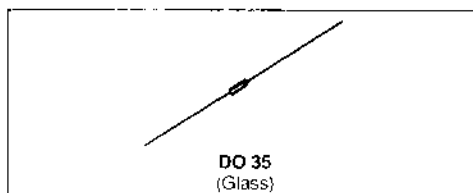
SMALL SIGNAL SCHOTTKY DIODES

DESCRIPTION

Metal to silicon junction diodes featuring high breakdown, 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, (BAR 11 only).



ABSOLUTE RATINGS (limiting values)

Symbol	Parameter	BAR 10	BAR 11	Unit
V_{RRM}	Repetitive Peak Reverse Voltage	20	15	V
I_F	Forward Continuous Current*	35	20	mA
I_{FSM}	Surge non Repetitive Forward Current*	100		mA
T_{sjn} T_j	Storage and Junction Temperature Range	- 65 to 200		°C
T	Maximum Lead Temperature for Soldering during 10s at 4mm from Case	230		°C

$T_a = 25^\circ\text{C}$

$t_p < 1\text{s}$

THERMAL RESISTANCE

Symbol	Parameter	Value	Unit
$R_{th(ja)}$	Junction-ambient*	400	°C/W

ELECTRICAL CHARACTERISTICS

STATIC CHARACTERISTICS

Symbol	Test Conditions	Min.	Typ.	Max.	Unit
V_{IRRM}	$T_{amb} = 25^\circ\text{C}$ $I_R = 10\mu\text{A}$ BAR 10	20			V
	$T_{amb} = 25^\circ\text{C}$ $I_R = 10\mu\text{A}$ BAR 11	15			
V_F^{**}	$T_{amb} = 25^\circ\text{C}$ $I_F = 1\text{mA}$			0.4*	V
	$T_{amb} = 25^\circ\text{C}$ $I_F = 35\text{mA}$ BAR 10			1	
	$T_{amb} = 25^\circ\text{C}$ $I_F = 20\text{mA}$ BAR 11			1	
	$T_{amb} = 25^\circ\text{C}$ $V_R = 15\text{V}$ BAR 10			0.1	μA
I_R^{**}	$T_{amb} = 25^\circ\text{C}$ $V_R = 8\text{V}$ BAR 11			0.1	

DYNAMIC CHARACTERISTICS

Symbol	Test Conditions	Min.	Typ.	Max.	Unit
C	$T_{amb} = 25^\circ\text{C}$ $V_F = 0\text{V}$ $f = 1\text{MHz}$			1.2	pF
τ	$T_{amb} = 25^\circ\text{C}$ $I_F = 5\text{mA}$ Krakauer Method			100	ps

* On infinite heatsink with 4mm lead length

** Pulsed test $t_p < 200\mu\text{s}$ $\delta < 2\%$

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

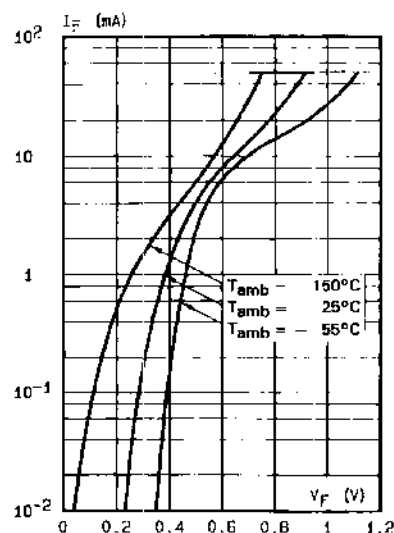


Fig.1 - Forward current versus forward voltage at different temperatures (typical values).

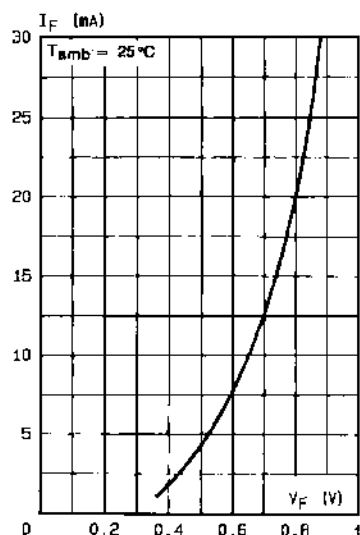


Fig.2 - Forward current versus forward voltage (typical values).

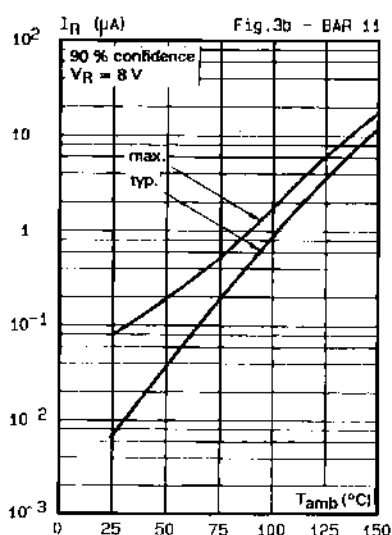
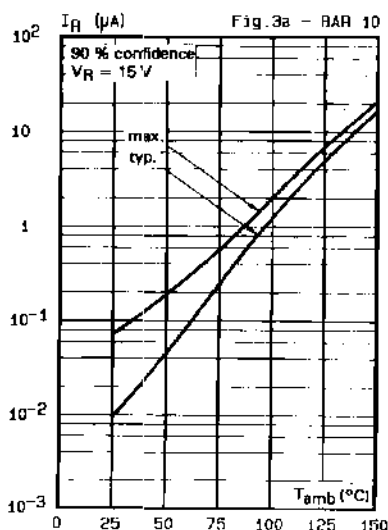


Fig.3a/3b - Reverse current versus ambient temperature.

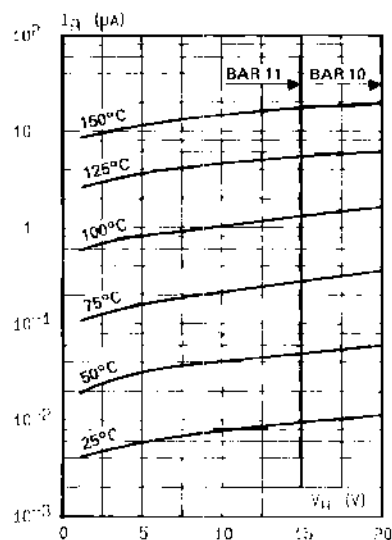


Fig.4 - Reverse current versus continuous reverse voltage (typical values).

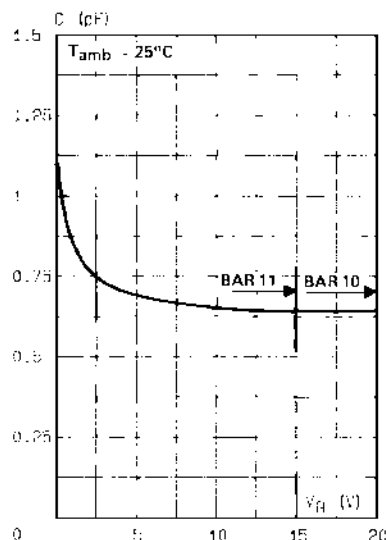
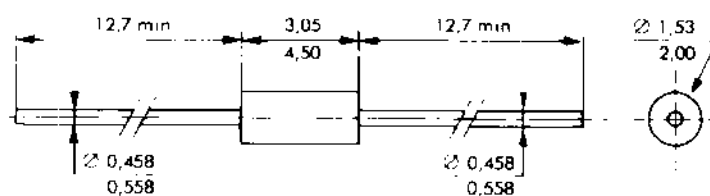


Fig.5 - Capacitance C versus reverse applied voltage V_R (typical values).

PACKAGE MECHANICAL DATA

DO 35 Glass



Cooling method : by convection and conduction

Marking : clear, ring at cathode end.

Weight : 0.15g