BAR28

SMALL SIGNAL SCHOTTKY DIODE

DESCRIPTION

Metal to silicon junction diode 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.

DO 35
(Glass)

ABSOLUTE RATINGS (limiting values)

Symbol	Parameter		Value	Unit
V_{RRM}	Repetitive Peak Reverse Voltage		70	V
I_F	Forward Continuous Current*	T_a = 25°C	15	mA
I_{FSM}	Surge non Repetitive Forward Current*	$t_p \leq 1s$	50	mA
T_{stg} T_j	Storage and Junction Temperature Range		- 65 to 200 - 65 to 200	°C
T_L	Maximum Lead Temperature for Soldering during 10s at 4mm from Case		230	°C

THERMAL RESISTANCE

Symbol	Test Conditions	Value	Unit
$R_{th(j-a)}$	Junction-ambient*	400	°C/W

ELECTRICAL CHARACTERISTICS

STATIC CHARACTERISTICS

Symbol	Test Conditions	Min.	Typ.	Max.	Unit
V_{BR}	T_{amb} = 25°C I_R = 10µA	70			V
V_F * *	T_{amb} = 25°C I_F = 1mA			0.41	V
	T_{amb} = 25°C I_F = 15mA			1	
I_R * *	T_{amb} = 25°C V_R = 50V			0.2	µA

DYNAMIC CHARACTERISTICS

Symbol	Test Conditions	Min.	Typ.	Max.	Unit
C	T_{amb} = 25°C V_R = 0Vf = 1MHz			2	pF
τ	T_{amb} = 25°C I_F = 5mA Krakauer Method			100	ps

* On infinite heatsink with 4mm lead length
** Pulse test: t_p ® 300µs $\delta < 2\%$.
Matched batches available on request. Test conditions (forward voltage and/or capacitance) according to customer specification.

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

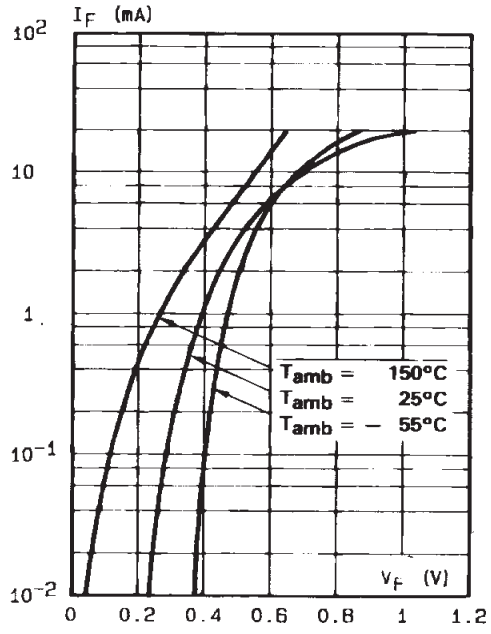


Fig. 2: Capacitance C versus reverse applied voltage V_R (typical values).

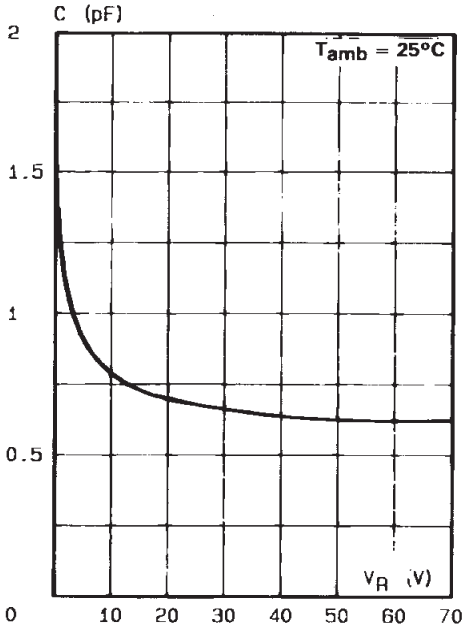


Fig. 3: Reverse current versus ambient temperature.

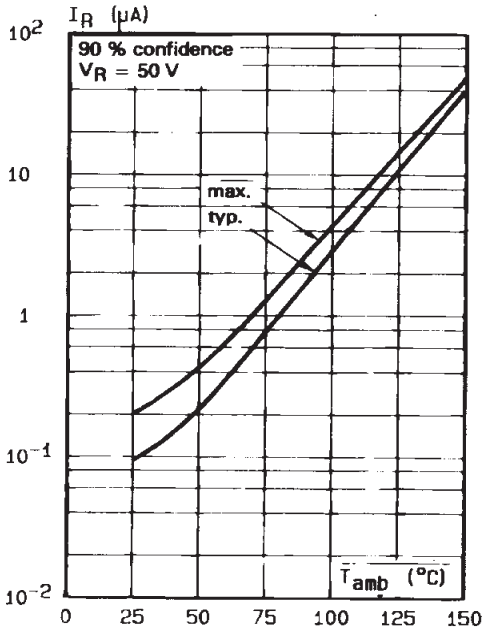
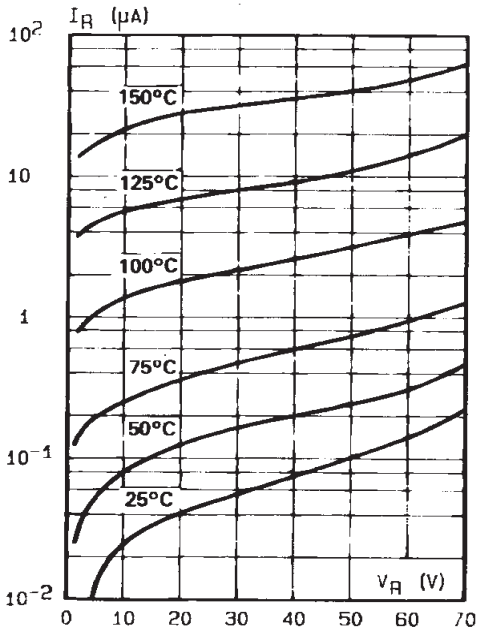
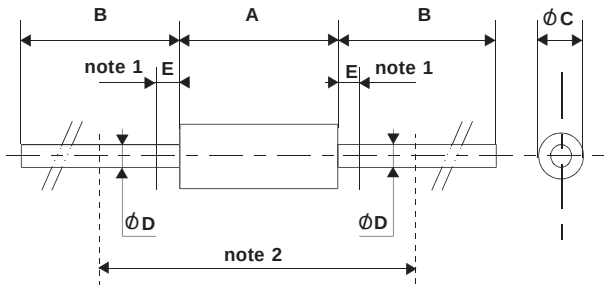


Fig. 4: Reverse current versus continuous reverse voltage (typical values).



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

PACKAGE MECHANICAL DATA



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