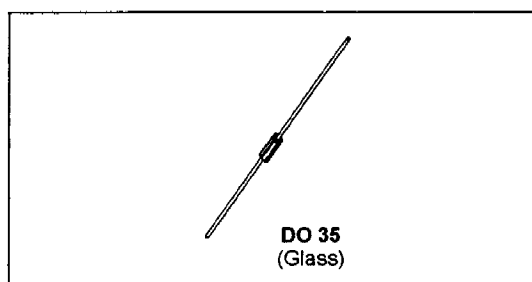


BAR 19

SMALL SIGNAL SCHOTTKY DIODE

DESCRIPTION

Metal to silicon junction diode primarily intended for UHF mixers and ultrafast switching applications.



ABSOLUTE RATINGS (limiting values)

Symbol	Parameter	Value	Unit
V_{RRM}	Repetitive Peak Reverse Voltage	4	V
I_F	Forward Continuous Current* $T_a = 25^\circ\text{C}$	30	mA
I_{FSM}	Surge non Repetitive Forward Current* $t_p \leq 1\text{s}$	60	mA
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*	400	$^\circ\text{C/W}$

ELECTRICAL CHARACTERISTICS

STATIC CHARACTERISTICS

Symbol	Test Conditions	Min.	Typ.	Max.	Unit
V_{BR}	$T_{amb} = 25^\circ\text{C}$ $I_R = 10\mu\text{A}$	4			V
$V_F(1)$	$T_{amb} = 25^\circ\text{C}$ $I_F = 10\text{mA}$			0.6	V
$I_R(1)$	$T_{amb} = 25^\circ\text{C}$ $V_R = 5\text{V}$			0.25	μA

DYNAMIC CHARACTERISTICS

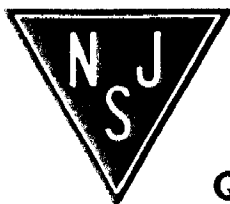
Symbol	Test Conditions	Min.	Typ.	Max.	Unit
C	$T_{amb} = 25^\circ\text{C}$ $V_R = 1\text{V}$ $f = 1\text{MHz}$			1	pF
F(2)	$T_{amb} = 25^\circ\text{C}$ $f = 1\text{GHz}$		6		dB

* On infinite heatsink with 4mm lead length

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

(2) Noise figure test:

- diode is inserted in a tuned stripline circuit
- local oscillator frequency 1GHz
- local oscillator power 1mW
- intermediate frequency amplifier, tuned on 30MHz, has a noise figure 1.5dB

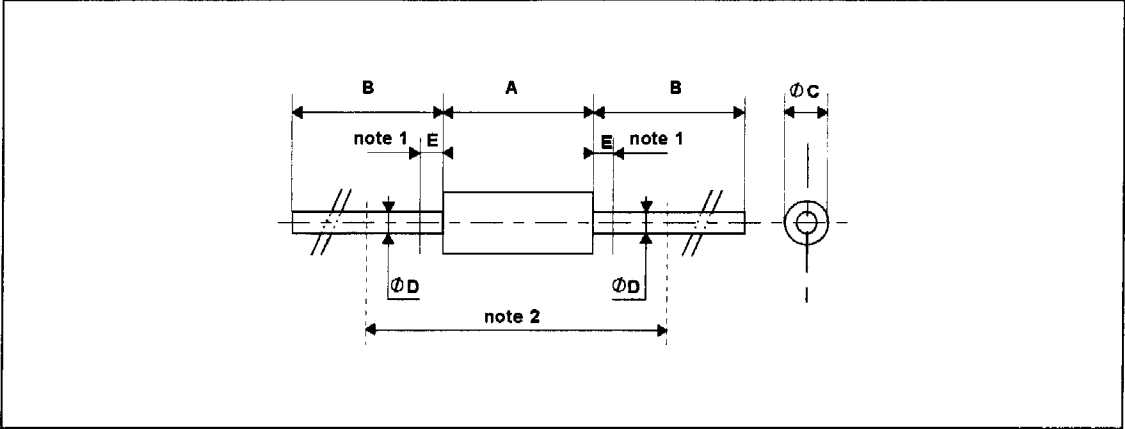


NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

Quality Semi-Conductors

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 Ø 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		
Ø C	1.530	2.000	0.060	0.079	
Ø D	0.458	0.558	0.018	0.022	
E		1.27		0.050	