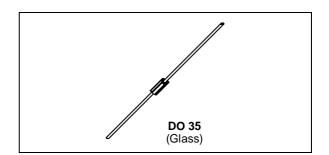


SMALL SIGNAL SCHOTTKY DIODE



DESCRIPTION

Metal to silicon junction diode primarly intended for UHF mixers and ultrafast switching applications. Matched batches are available on request.

ABSOLUTE MAXIMUM RATINGS (limiting values)

Symbol	Parameter	Value	Unit
V_{RRM}	Repetitive Peak Reverse Voltage	10	V
I _F	Forward Continuous Current*	30	mA
I _{FSM}	Surge non Repetitive Forward Current*	60	mA
$T_{stg} \ T_{j}$	Storage and Junction Temperature Range	- 65 to + 150 - 65 to + 125	°C °C
TL	Maximum Lead Temperature for Soldering of 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		Min.	Тур.	Max.	Unit		
V_{BR}	$T_{amb} = 25^{\circ}C$	$I_R = 10\mu A$		10			V
V _F (1)	T _{amb} = 25°C	$I_F = 1 \text{mA}$				0.4	V
	T _{amb} = 25°C	$I_F = 20mA$				1	
I _R (1)	T _{amb} = 25°C	$V_R = 5V$				0.1	μΑ

DYNAMIC CHARACTERISTICS

Symbol		Test Conditions			Тур.	Max.	Unit
С	T _{amb} = 25°C	$V_R = 0V$	f = 1GHz			1.2	рF
τ	T _{amb} = 25°C	$I_F = 20mA$	Krakauer Method			100	ps
F (2)	T _{amb} = 25°C	f = 1GHz			6		dB

^{*} On infinite heatsink with 4mm lead length

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

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⁽¹⁾ Pulse test: $t_p \le 300 \mu s \ \delta < 2\%$. (2) Noise figure test :

<sup>diode is inserted in a tuned stripline circuit
local oscillator frequency 1GHz</sup>

⁻ local oscillator power 1mW

⁻ intermediate frequency amplifier, tuned on 30MHz, has a noise figure 1.5dB

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

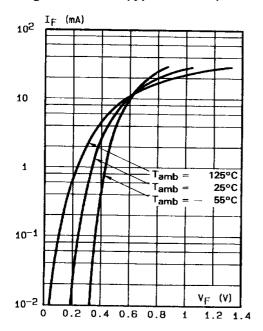


Figure 2. Capacitance C versus reverse applied voltage $V_{\rm R}$ (typical values).

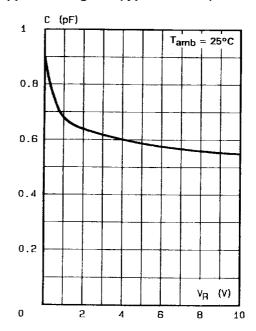


Figure 3. Reverse current versus ambient temperature.

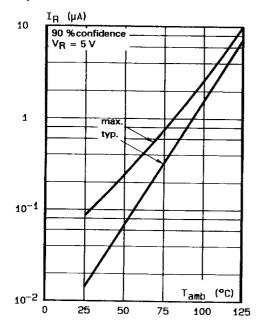
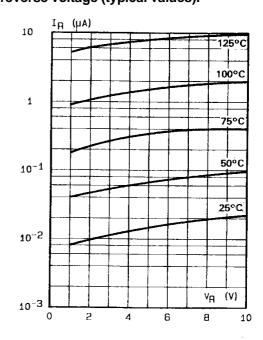
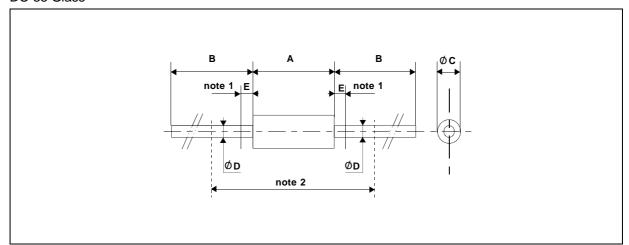


Figure 4. Reverse current versus continuous reverse voltage (typical values).



PACKAGE MECHANICAL DATA

DO 35 Glass



	DIMENSIONS					
REF.	EF. Millimeters		Inches		NOTES	
	Min.	Max.	Min.	Max.		
Α	3.050	4.500	0.120	0.117	1 - The lead diameter Ø D is not controlled over zone E	
В	12.7		0.500		The lead diameter & B is not someoned over 2010 E	
ØC	1.530	2.000	0.060	0.079	2 - The minimum axial lengh within which the device may be	
Ø D	0.458	0.558	0.018	0.022	placed with its leads bent at right angles is 0.59"(15 mm)	
Е		1.27		0.050		

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

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