

- ◆ Small Insertion Loss
- ◆ High Isolation
- ◆ Small Glass Package

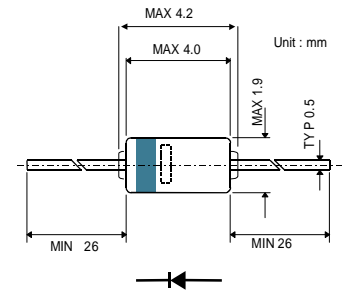
### ■ Applications

- Antenna Switch

### ■ General Description

The XB15A301 PIN diode employs a high reliability glass package that is designed for solid state antenna switches used in commercial two-way radios.

### ■ Dimensions



JEDEC DO-35

### ■ Absolute Maximum Ratings

Ta=25°C

SYMBOL	PARAMETER	RATINGS	UNITS
V <sub>RM</sub>	Repetitive Peak Reverse Voltage	80	V
I <sub>FSM</sub> *	Forward Surge Current	2	A
P	Power Dissipation	350	mW
T <sub>j</sub>	Junction Temperature	175	°C
T <sub>stg</sub>	Storage Temperature	-55 to 175	°C

\* t = 1sec

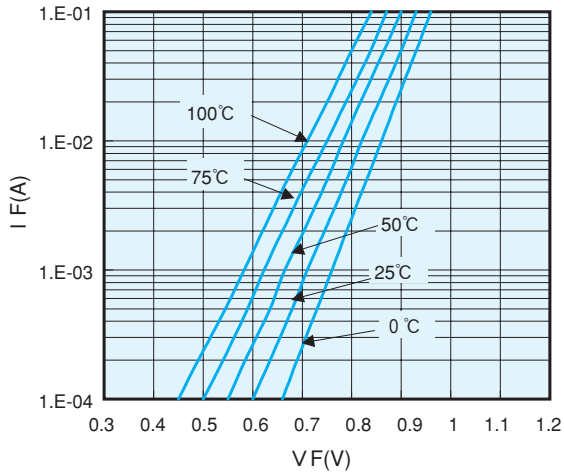
### ■ Electrical characteristics

Ta=25°C

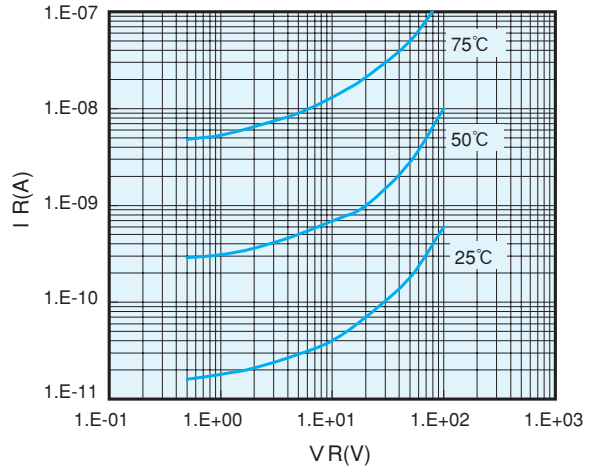
SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNITS
			MIN	TYP	MAX	
I <sub>R</sub>	Reverse Current	V <sub>R</sub> = 60V			150	nA
V(BR)R	Reverse Breakdown Voltage	I <sub>R</sub> = 10μA	80			V
I <sub>F</sub>	Forward Current	V <sub>F</sub> = 1.0V	100			mA
C <sub>t</sub>	Diode Capacitance	V <sub>R</sub> = 0V, f = 1MHz		2.0	3.0	pF
r <sub>fs</sub>	Forward Series Resistance	I <sub>F</sub> = 20mA, f = 470MHz		0.8	1.2	Ω
Q	Q	V <sub>R</sub> = 0V, f = 50MHz	20.0			-
LS	Lead Inductance	Total Lead Length 10mm		2.5		nH

## Electrical Characteristics

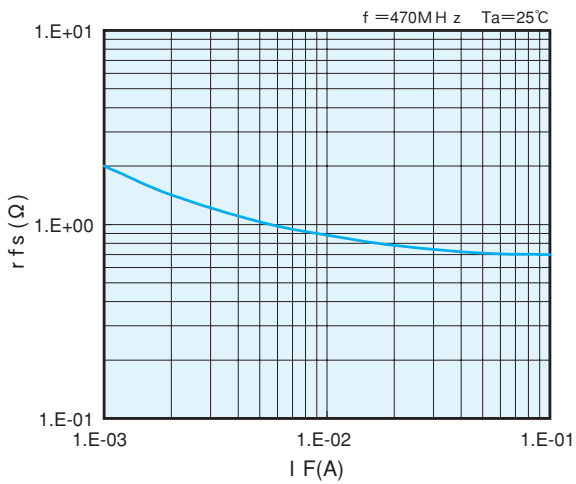
Forward Current vs. Forward Voltage



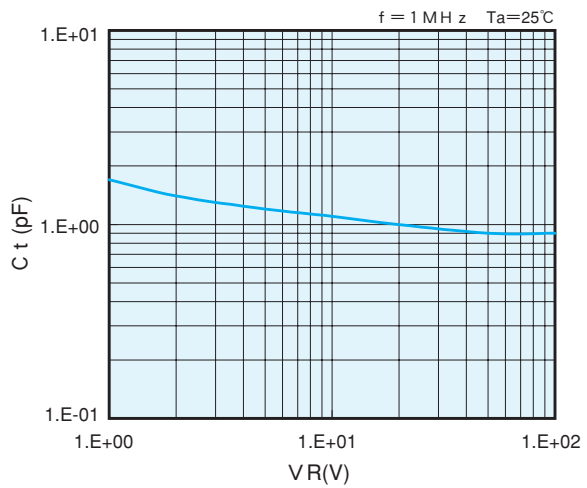
Reverse Current vs. Reverse Voltage



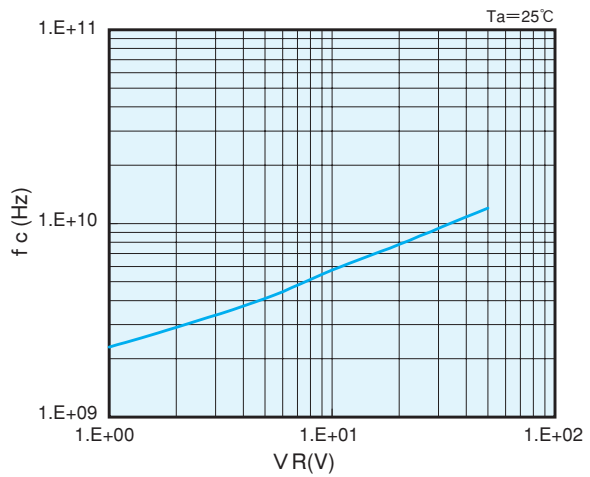
Forward Series Resistance vs. Forward Current



Diode Capacitance vs. Reverse Voltage

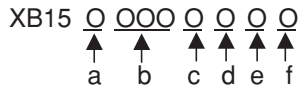


Cut-Off Frequency vs. Reverse Voltage



Ordering Information

WIDTH (mm)	TYPE	MINIMUM ORDER UNIT	ORDERING
26	Taping	2000 pcs./ Ammo Pack Box	XB15A****GT
52	Taping	2000 pcs./ Ammo Pack Box	XB15A****GT
52	Taping Reel	5000 pcs./ Reel	XB15A****GR
52	Bulk	100 pcs./ Bag x 10 Bags	XB15A****GB
12	Embossed tape	1500 pcs./ Reel	XB15A****HR



SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
a	Development order (A...)	c	Version
b	Series :	d	Lead length :
	105		0 : No lead
	204	1 : Short lead (26mm)	
	301	2 : Long lead (52mm)	
e	303	f	Package type :
	308		G : Glass shield
	402		H : Ceramic (no lead)
	407	Taping method :	
709		B : Bag	
		T : Paper tape	
		R : Embossed tape (no lead)	

Note : With the 26mm width, only the XB15A105, XB15A204 and XB15A301 are available in the taping format. Please further note that the XB15A105 has a 'Minimum Order Unit' of 5000 pcs./ Box and not 2000.

Taping Specification

Axial Taping

