

- ◆ High Power Handling
- ◆ Small Capacitance at Zero Bias, Extremely Small Reverse Bias
- ◆ Small Series Order Resistance
- ◆ Small Insertion Loss, High Isolation
- ◆ Extremely Small Wave Distortion
(TX spurious < -80dBc, RX intermodulation = -73dBc at 90dB μ)

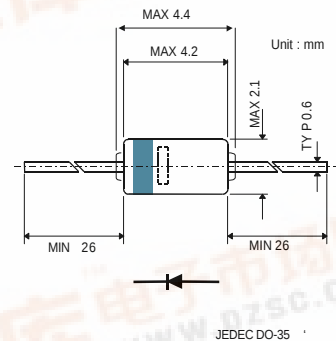
General Description

The XB15A308 PIN diode employs a high reliability glass package that is designed for solid state antenna switches used in commercial two-way radios.

Applications

- High Power Antenna Switch
(10W output two-way radio)

Dimensions



Absolute Maximum Ratings

Ta=25 °C

SYMBOL	PARAMETER	RATINGS	UNITS
VRM	Repetitive Peak Reverse Voltage	50	V
VR	Reverse Voltage	50	V
IFSM *	Forward Surge Current	2	A
P	Power Dissipation	500	mW
Tj	Junction Temperature	175	°C
Tstg	Storage Temperature	-55 to 175	°C

* t = 5sec

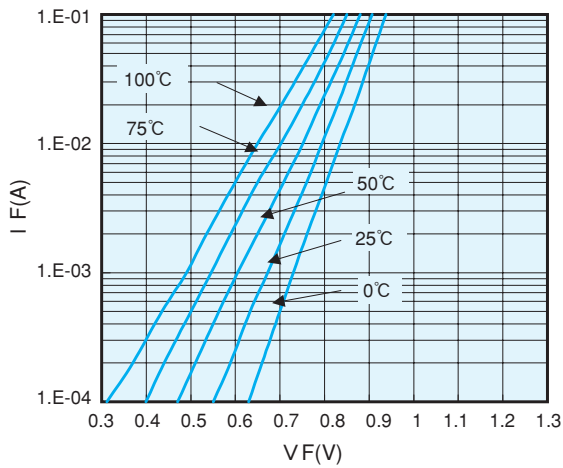
Electrical characteristics

Ta=25 °C

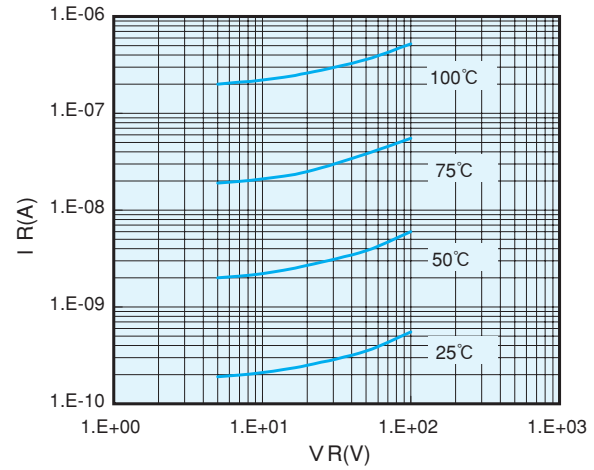
SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNITS
			MIN	TYP	MAX	
IR1	Reverse Current	VR = 50V			10	μ A
IR2		VR = 45V			0.5	μ A
IF	Forward Current	VF = 1.0V	100			mA
Ct	Diode Capacitance	VR = 0V, f = 100MHz		1.3	1.8	pF
rfs	Forward Series Resistance	IF = 50mA, f = 470MHz		0.65	0.8	Ω
RP	Parallel Resistance	VR = 0V, f = 100MHz	1.0	6.0		k Ω

Electrical Characteristics

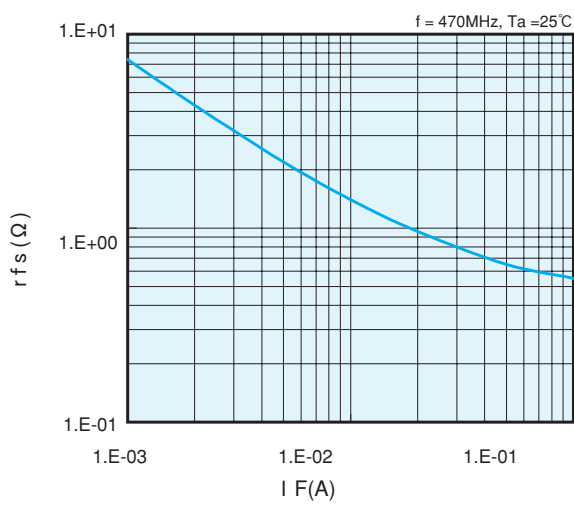
Forward Current vs. Forward Voltage



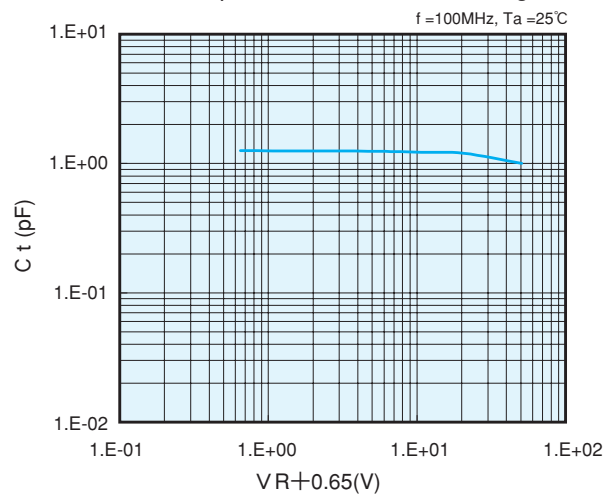
Reverse Current vs. Reverse Voltage



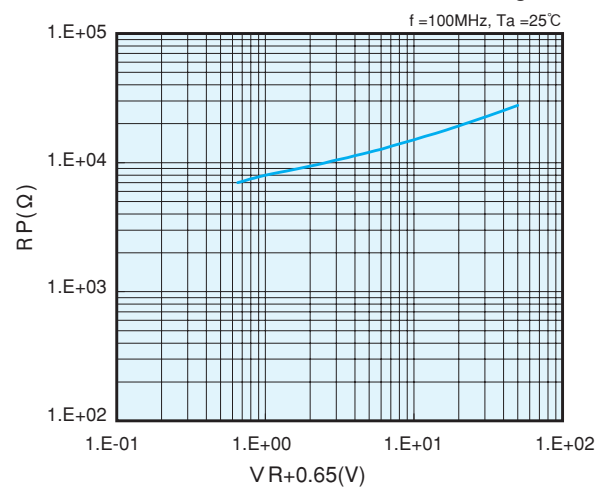
Forward Series Resistance vs. Forward Current



Diode Capacitance vs. Reverse Voltage



Parallel Resistance 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

XB15 $\frac{O}{\uparrow a}$ $\frac{OOO}{\uparrow b}$ $\frac{O}{\uparrow c}$ $\frac{O}{\uparrow d}$ $\frac{O}{\uparrow e}$ $\frac{O}{\uparrow f}$

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

