XB15A402 PIN DIODE

- **Small Insertion Loss**
- **High Isolation**
- **High Power Handling**

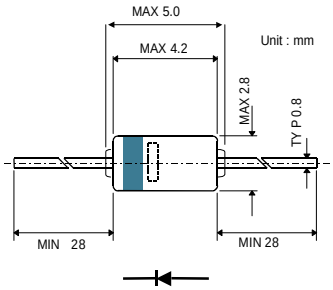
■ Applications

- High Power Antenna Switch (25W output two-way radio)

■ General Description

The XB15A402 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-41

■ Absolute Maximum Ratings

Ta=25°C

SYMBOL	PARAMETER	RATINGS	UNITS
V_{RM}	Repetitive Peak Reverse Voltage	270	V
I_{FSM} *	Forward Surge Current	2	A
P	Power Dissipation	1	W
Tj	Junction Temperature	175	°C
Tstg	Storage Temperature	-55 to 175	°C

* t = 5sec

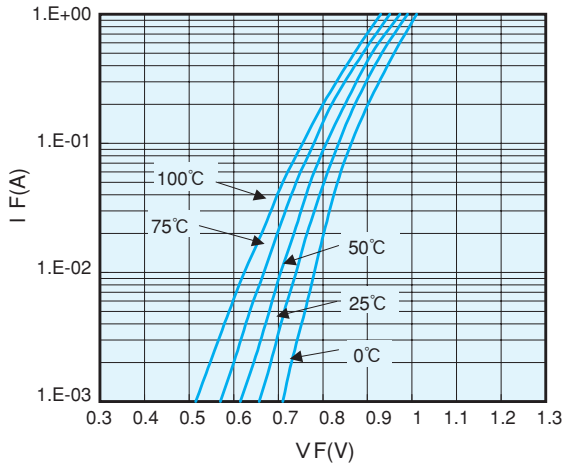
■ Electrical characteristics

Ta=25°C

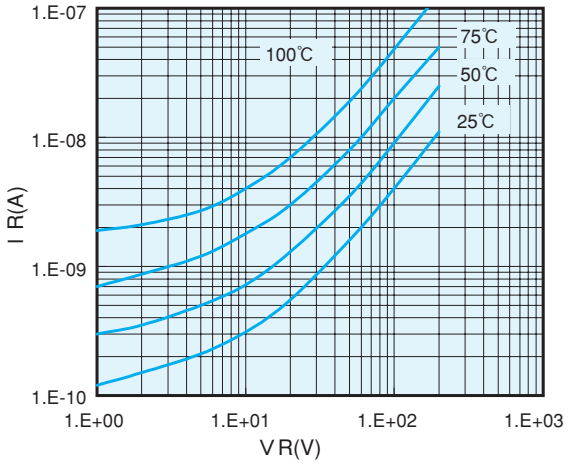
SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNITS
			MIN	TYP	MAX	
I_{R1}	Reverse Current	V_R = 270V			10	μA
I_{R2}		V_R = 200V			150	nA
I_F	Forward Current	V_F = 1.0V	500			mA
Ct	Diode Capacitance	V_R = 12V, f = 1MHz		2.0	3.0	pF
r_{fs}	Forward Series Resistance	I_F = 50mA, f = 470MHz		0.5	0.7	Ω
fc	Cut-off Frequency	V_R = 12V, f = 50MHz	1.0			GHz

■ Electrical Characteristics

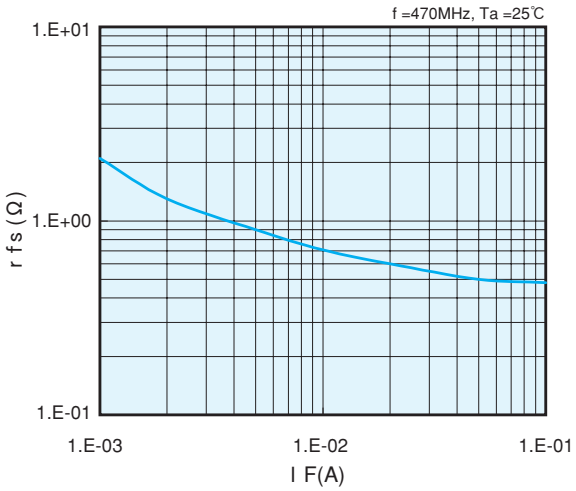
Forward Current vs. Forward Voltage



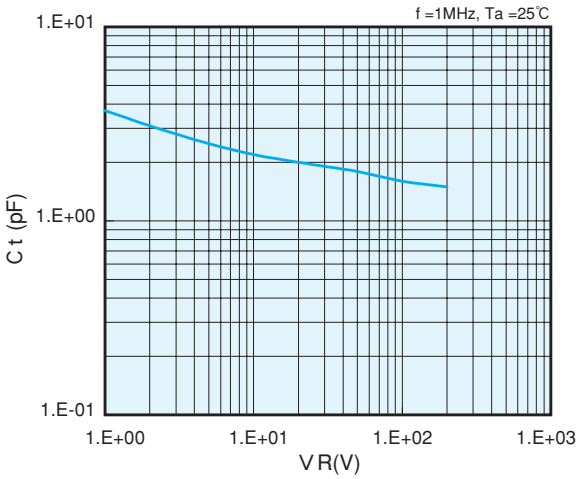
Reverse Current vs. Reverse Voltage



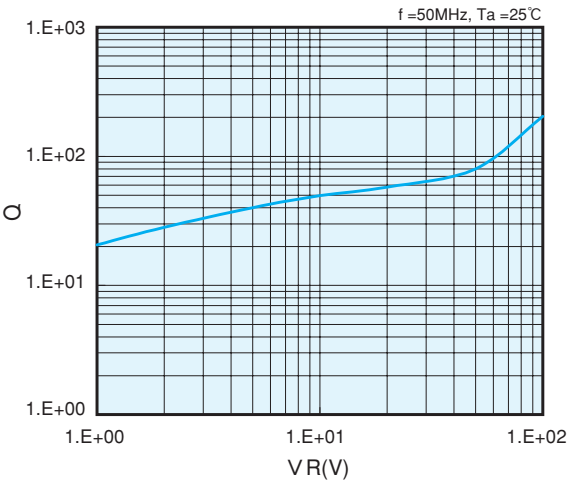
Forward Series Resistance vs. Forward Current



Diode Capacitance vs. Reverse Voltage



Q vs. Reverse Voltage



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■ 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

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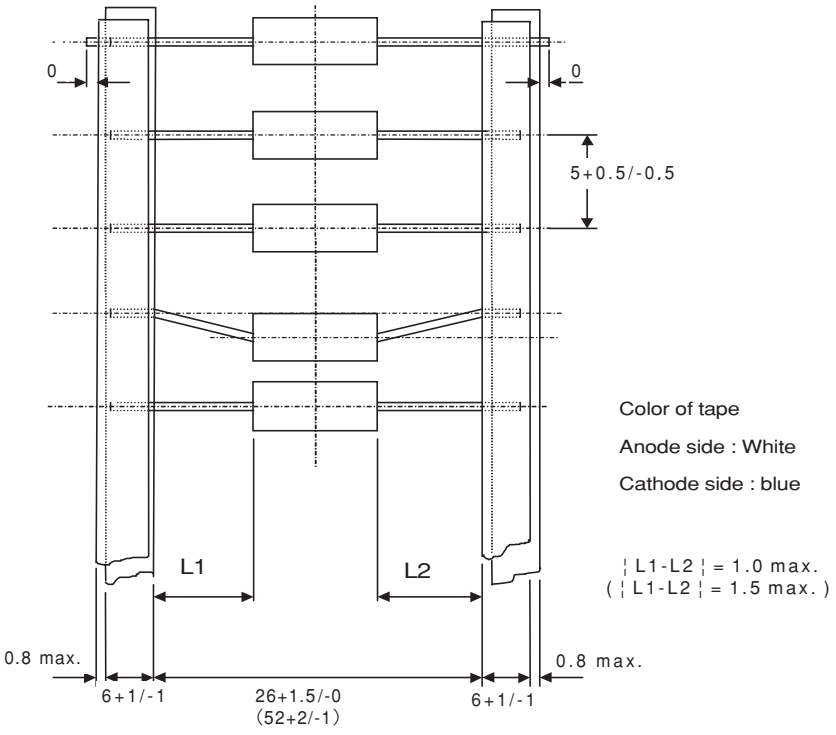
a b c d e f

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