

- ◆ High Power Handling
- ◆ Small Capacitance at Zero Bias, Extremely Small Reverse Bias
- ◆ Small Series Order Resistance
- ◆ Small Insertion Loss, High Isolation
- ◆ Surface Mount Type (for reflow assembly)

Applications

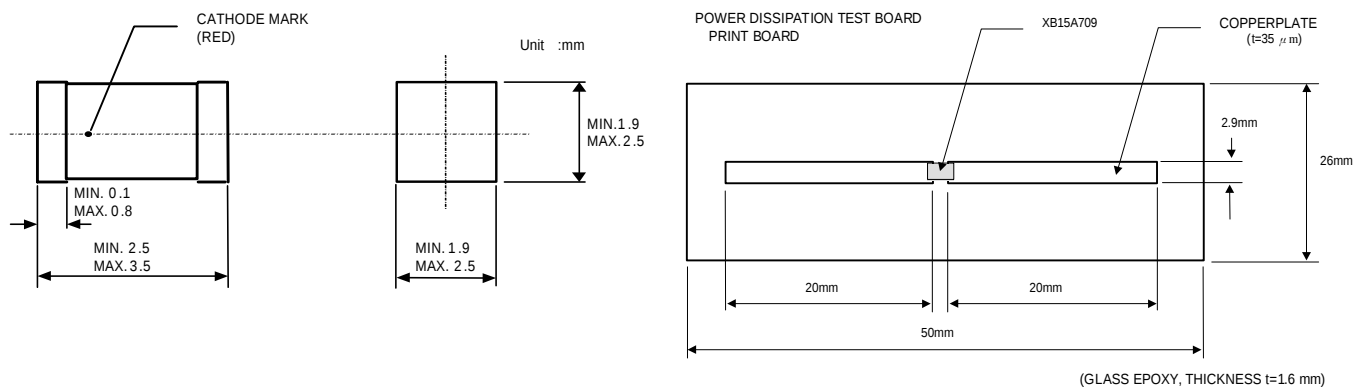
- High Power Antenna Switch
(10W output two-way radio)

General Description

The XB15A709A0HR PIN diode is designed for solid state antenna switching applications in mobile radios.

The XB15A709A0HR employs a square outline which makes it suitable for reflow assembly on surface mounting.

Dimensions



Absolute Maximum Ratings

Ta=25 °C

SYMBOL	PARAMETER	RATINGS	UNITS
VR	Reverse Voltage	50	V
P	Power Dissipation (surface contact)*	1	W
		*Glass Epoxy, t=1.6mm	
Tj	Junction Temperature	175	°C
Tstg	Storage Temperature	-55 to 175	°C

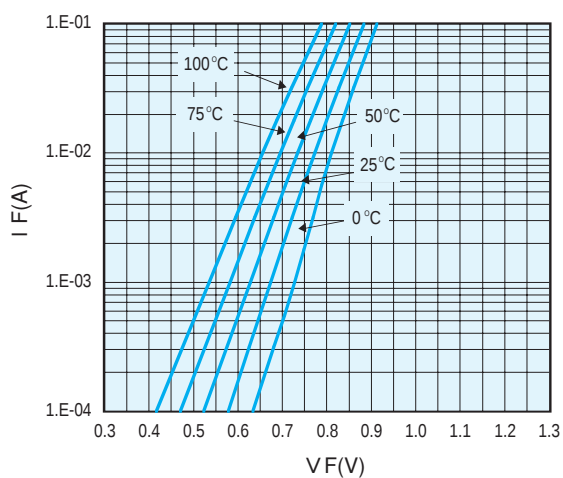
Electrical characteristics

Ta=25 °C

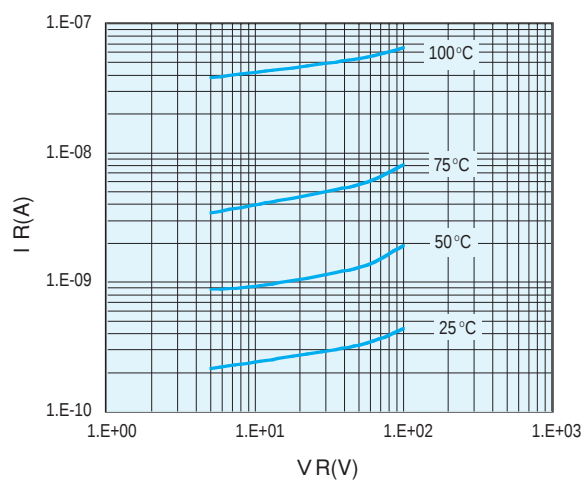
SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNITS
			MIN	TYP	MAX	
IR	Reverse Current	VR = 50V			10	μA
VF	Forward Voltage	IF = 50mA			1.0	V
Ct	Diode Capacitance	VR = 40V, f = 1MHz			1.2	pF
r _{fs}	Forward Series Resistance	IF = 50mA, f = 100MHz		0.5	0.75	Ω
RP	Parallel Resistance	VR = 0V, f = 100MHz	1.0	3.0		kΩ

Electrical Characteristics

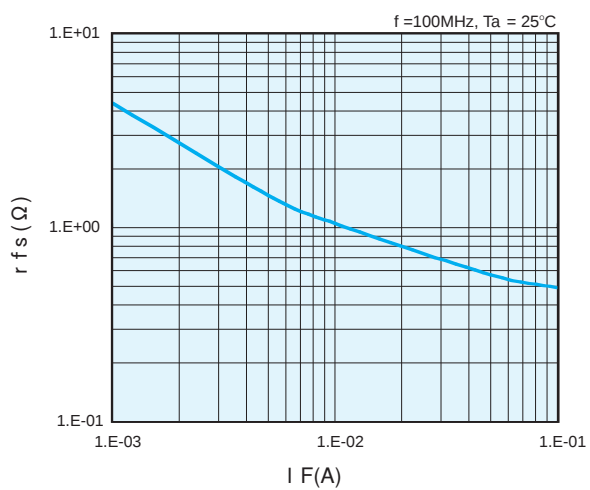
Forward Current vs. Forward Voltage



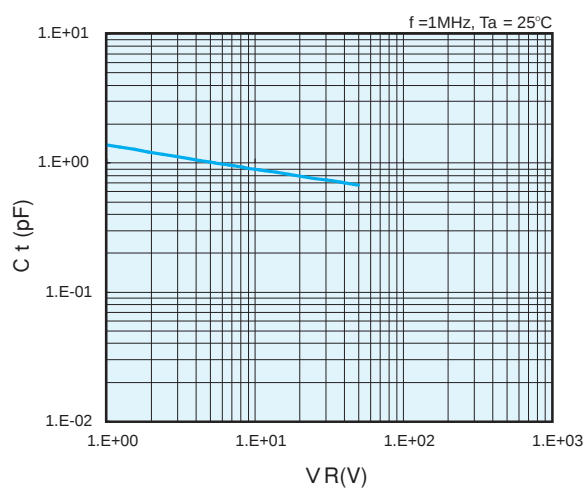
Reverse Current vs. Reverse Voltage



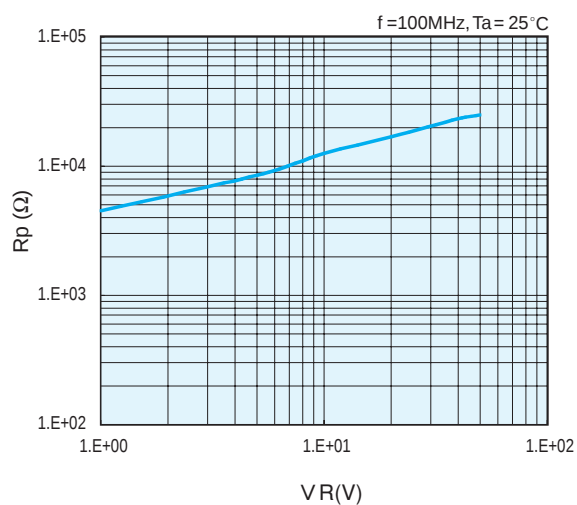
Forward Series Resistance vs. Forward Current



Diode Capacitance vs. Reverse Voltage



Parallel Resistance vs. Reverse Voltage



Ordering Information

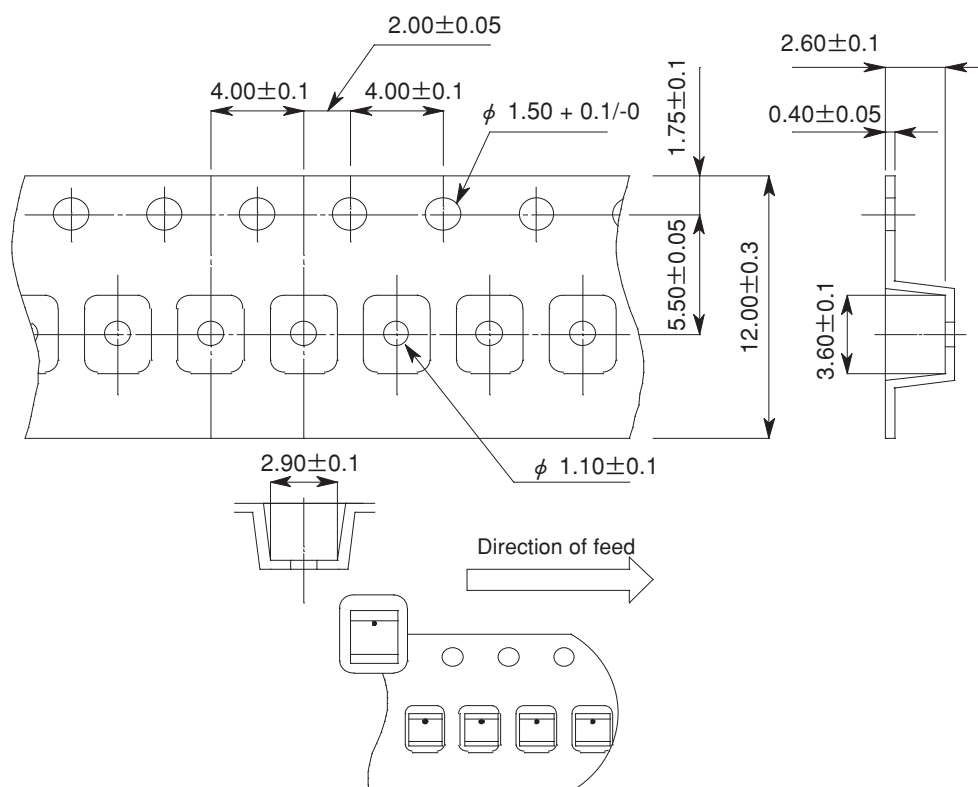
WIDTH (mm)	TYPE	MINIMUM ORDER UNIT	ORDERING
26	Taping	2000 pcs./ Ammo Pack Box	XB15A****GT
52	Taping	2000 pcs./ Ammo Pack Box	XB15A****GT
52	Taping Reel	5000 pcs./ Reel	XB15A****GR
52	Bulk	100 pcs./ Bag x 10 Bags	XB15A****GB
12	Embossed tape	1500 pcs./ Reel	XB15A****HR

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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)

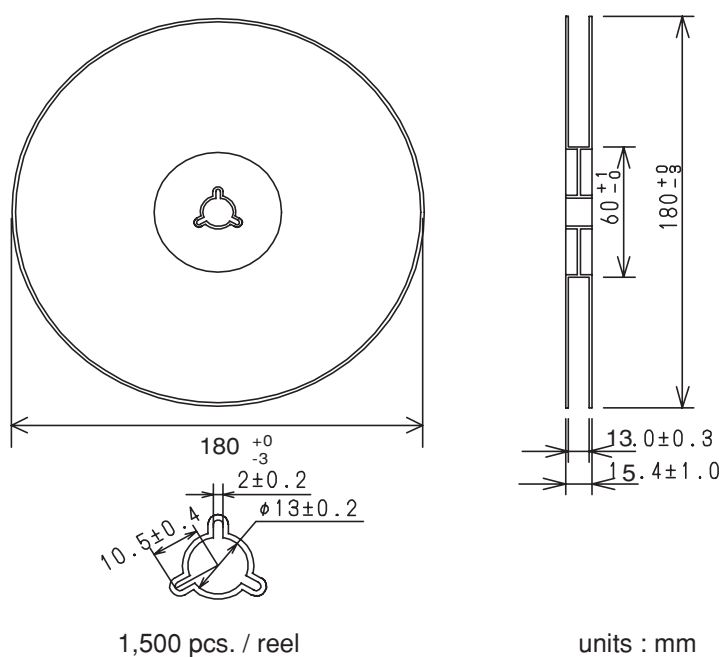
Note : With the 26mm width, only the XB15A105, XB15A204 and XB15A301 are available in the taping format.
Please further note that the XB15A105 has a 'Minimum Order Unit' of 5000 pcs./ Box and not 2000.

■ Taping Specifications



units : mm

■ Reel Specifications



1,500 pcs. / reel

units : mm