

XB15A308



PIN DIODE

- ◆ 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 @ 90dB μ)

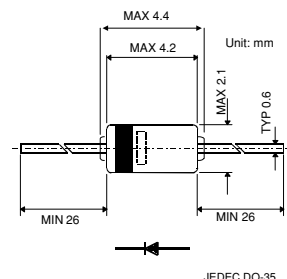
Applications

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

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.

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 ~ 175	°C

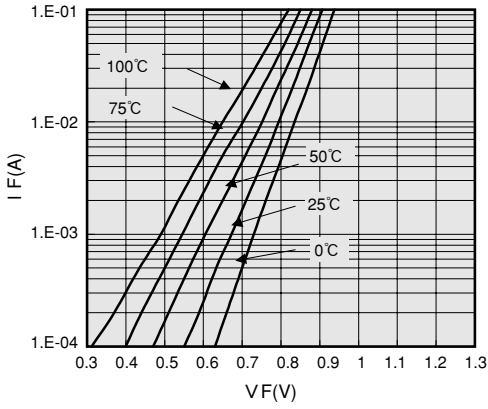
* t = 5sec

Electrical Characteristics

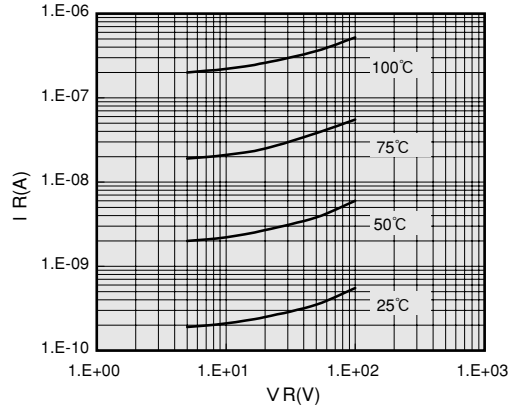
Ta=25 °C

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

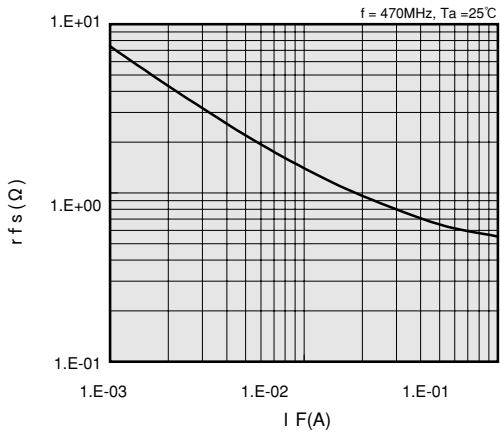
FORWARD CURRENT
vs. FORWARD VOLTAGE



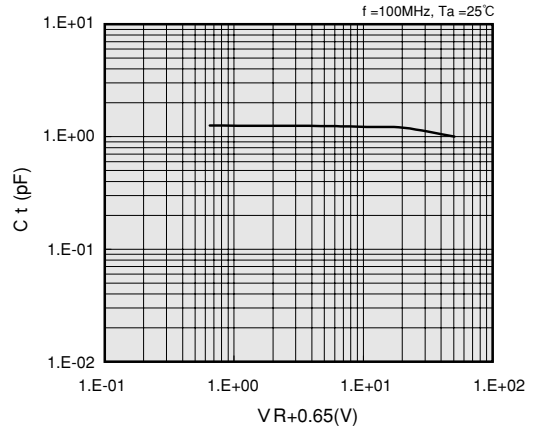
REVERSE CURRENT
vs. REVERSE VOLTAGE



FORWARD SERIES RESISTANCE
vs. FORWARD CURRENT



DIODE CAPACITANCE
vs. REVERSE VOLTAGE



PARALLEL RESISTANCE
vs. REVERSE VOLTAGE

