XB15A407

TOREX

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 sprious <-80dBc, RX intermodulation = -73dBc @ 90dB μ)**

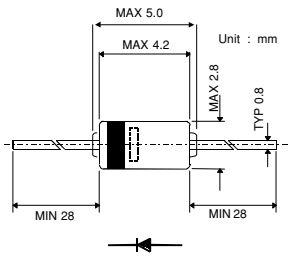
■Applications

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

■General Description

The XB15A407 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
VRM	Repetitive Peak Reverse Voltage	50	V
VR	Reverse Voltage	50	V
IFSM *	Forward Surge Current	2	A
P	Power Dissipation	1	W
Tj	Junction Temperature	175	°C
Tstg	Storage Temperature	-55 ~ 175	°C

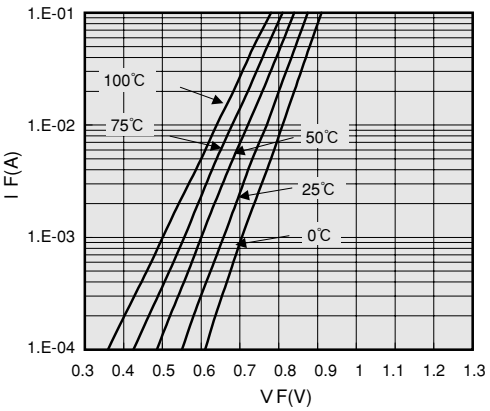
* t = 5sec

■Electrical Characteristics

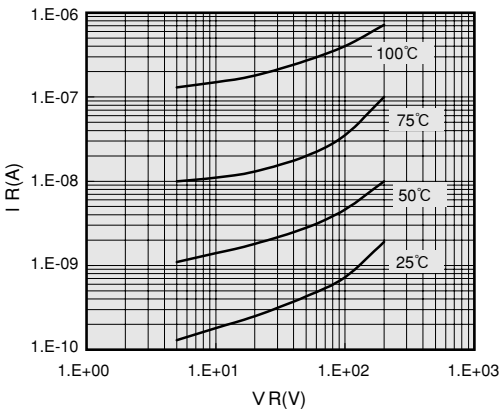
Ta=25°C

SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNITS
			MIN	TYP	MAX	
IR1	Reverse Current	VR = 50V			10	μA
IR2		VR = 45V			0.5	μA
IF	Forward Current	VF = 1.0V	100			mA
Ct	Diode Capacitance	VR = 0V, f = 100MHz		1.6	2.0	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		kΩ

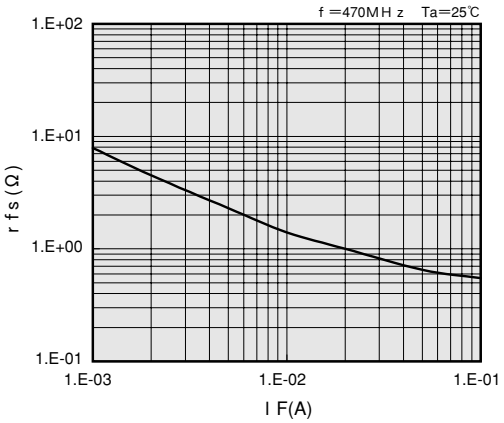
FORWARD CURRENT
vs. FORWARD VOLTAGE



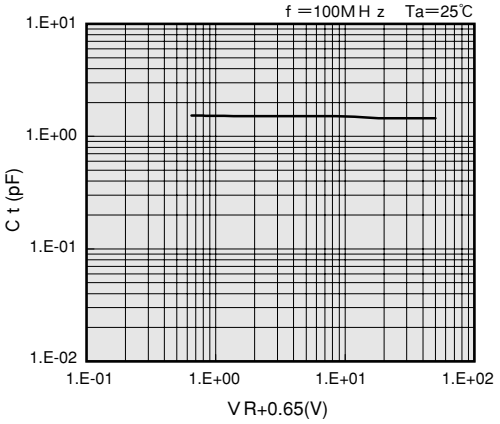
REVERSE CURRENT
vs. REVERSE VOLTAGE



FORWARD SERIES RESISTANCE
vs. FORWARD CURRENT



DIODE CAPACITANCE
vs. REVERSE VOLTAGE



PARALLEL RESISTANCE
vs. REVERSE VOLTAGE