

PIN DIODE

Small Insertion Loss

High Isolation

High Power Handling

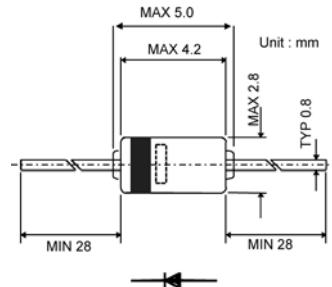
APPLICATIONS

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

T_a = 25

PARAMETER	SYMBOL	RATINGS		UNITS
Repetitive Peak Reverse Voltage	V _{RM}	270		V
Forward Surge Current	I _{FSM} *	2		A
Power Dissipation	P	1		W
Junction Temperature	T _j	175		
Storage Temperature Range	T _{stg}	-55 ~ 100		

* t = 5sec

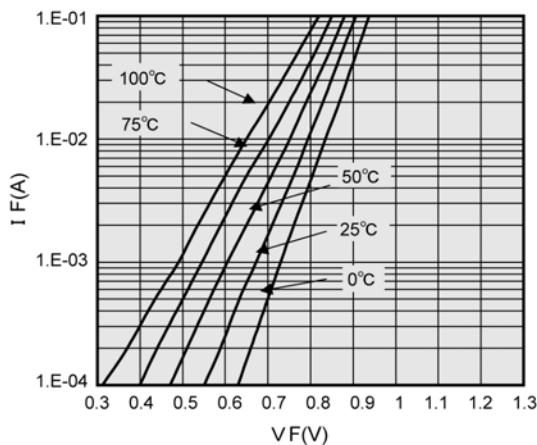
ELECTRICAL CHARACTERISTICS

T_a = 25

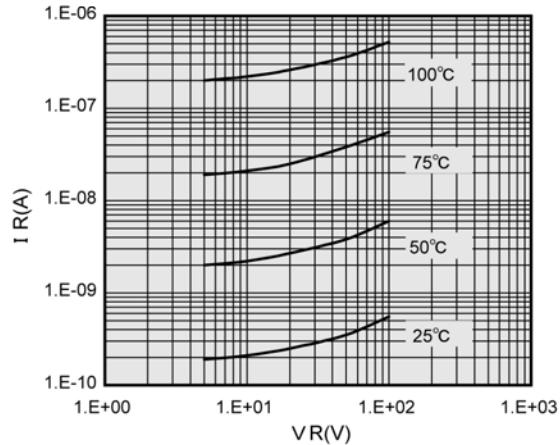
PARAMETER	SYMBOL	CONDITIONS	LIMITS			UNITS
			MIN.	TYP.	MAX.	
Reverse Current	I _{R1}	V _R = 270V	-	-	10	μA
	I _{R2}	V _R = 200V	-	-	150	nA
Forward Current	I _F	V _F = 1.0V	500	-	-	mA
Diode Capacitance	C _t	V _R = 12V, f = 1MHz	-	2.0	3.0	pF
Forward Series Resistance	r _{fs}	I _F = 50mA, f = 470MHz	-	0.5	0.7	
Cut-Off Frequency	f _c	V _R = 12V, f = 50MHz	1.0	-	-	GHz

TYPICAL PERFORMANCE CHARACTERISTICS

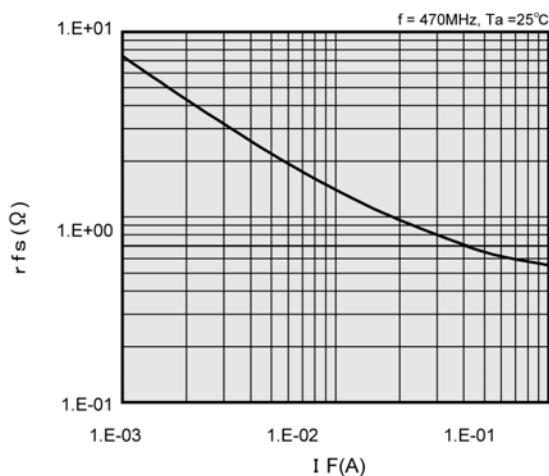
(1) Forward Current
vs. Forward Voltage



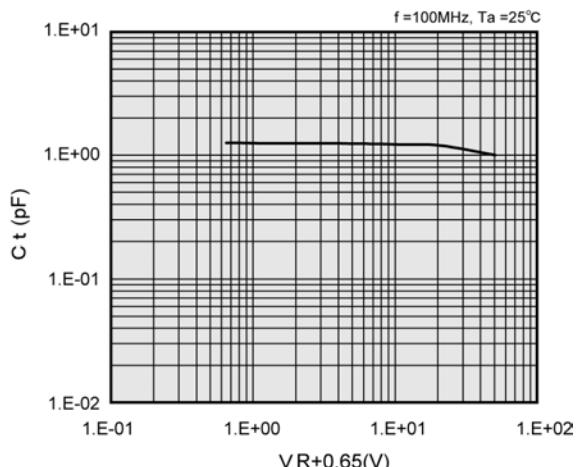
(2) Reverse Current
vs. Reverse Voltage



(3) Forward Series Resistance
vs. Forward Current



(4) Diode Capacitance
vs. Reverse Voltage



(5) Q vs. Reverse Voltage

