

XB15A301



PIN DIODE

- ◆ Small Insertion Loss
- ◆ High Isolation
- ◆ Small Glass Package

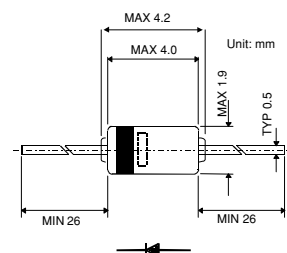
Applications

- Antenna Switch

General Description

The XB15A301 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-35

Absolute Maximum Ratings

Ta=25°C

| SYMBOL | PARAMETER | RATINGS | UNITS |
|--------|---------------------------------|-----------|-------|
| VRM | Repetitive Peak Reverse Voltage | 80 | V |
| IFSM * | Forward Surge Current | 2 | A |
| P | Power Dissipation | 350 | mW |
| Tj | Junction Temperature | 175 | °C |
| Tstg | Storage Temperature | -55 ~ 175 | °C |

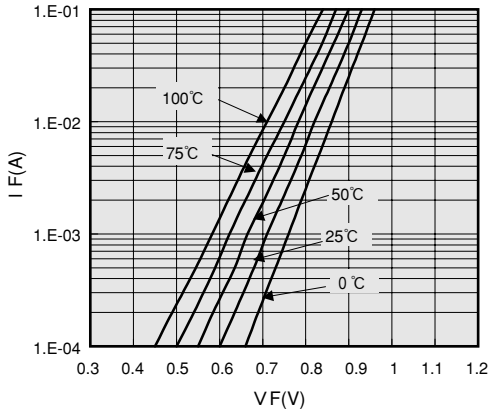
* t = 1sec

Electrical Characteristics

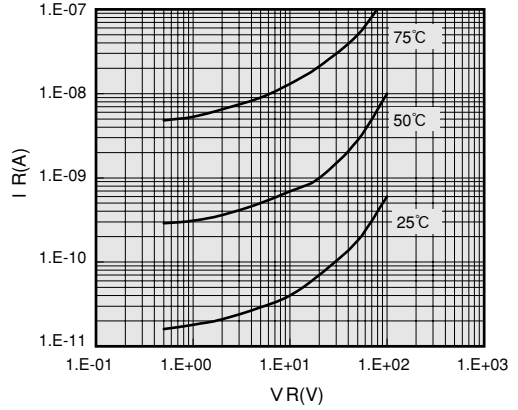
Ta=25°C

| SYMBOL | PARAMETER | TEST CONDITIONS | LIMITS | | | UNITS |
|--------|---------------------------|------------------------|--------|-----|-----|-------|
| | | | MIN | TYP | MAX | |
| IR | Reverse Current | VR = 60V | | | 150 | nA |
| V(BR)R | Reverse Breakdown Voltage | IR = 10μA | 80 | | | V |
| IF | Forward Current | VF = 1.0V | 100 | | | mA |
| Ct | Diode Capacitance | VR = 0V, f = 1MHz | | 2.0 | 3.0 | pF |
| rfs | Forward Series Resistance | IF = 20mA, f = 470MHz | | 0.8 | 1.2 | Ω |
| Q | Q | VR = 0V, f = 50MHz | 20.0 | | | - |
| LS | Lead Inductance | Total Lead Length 10mm | | 2.5 | | nH |

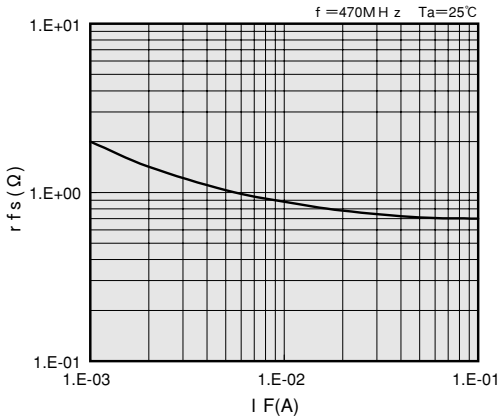
FORWARD CURRENT
vs. FORWARD VOLTAGE



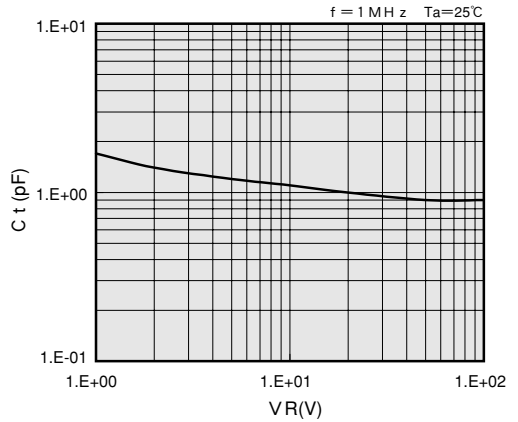
REVERSE CURRENT
vs. REVERSE VOLTAGE



FORWARD SERIES RESISTANCE
vs. FORWARD CURRENT



DIODE CAPACITANCE
vs. REVERSE VOLTAGE



CUT-OFF FREQUENCY
vs. REVERSE VOLTAGE

