

XB0ASB03A1BR

ETR1602_001

Schottky Barrier Diode 500mA 30V Type

■ GENERAL DESCRIPTION

- Small package, SOD-323
- Suitable for compact, low profile circuit designs
- Low Forward Voltage ($V_F=400\text{mV}@I_F=500\text{mA}$)
- Short reverse recovery time ($t_{rr}=10\text{ns}$)

■ APPLICATIONS

- Rectification of compact DC/DC converter
- Surge absorption caused by counter force of compact motors
- Protection against reverse connection of battery

■ FEATURES

- 500mA, 30V Type
- Low V_F 400mV @ 500mA (TYP.)
- Small Package : SOD-323

■ ABSOLUTE MAXIMUM RATINGS

Ta = 25°C

| PARAMETER | SYMBOL | RATINGS | UNIT |
|--|-------------|----------|------|
| Repetitive Peak Reverse Voltage | V_{RM} | 30 | V |
| Reverse Voltage (DC) | V_R | 20 | V |
| Forward Current (Average) | $I_{F(AV)}$ | 0.5 | A |
| Non Continuous Forward Surge Current*1 | I_{FSM} | 5 | A |
| Junction Temperature | T_j | 125 | °C |
| Storage Temperature Range | T_{stg} | -55~+150 | °C |

*1: Non continuous high amplitude 60Hz half-sine wave.

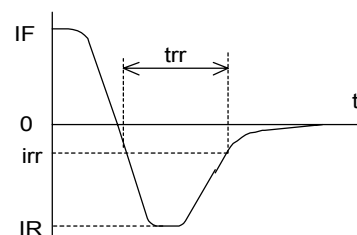
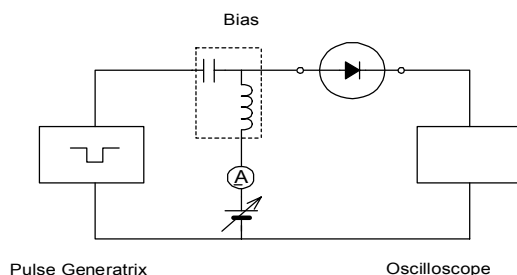
■ ELECTRICAL CHARACTERISTICS

Ta=25°C

| PARAMETER | SYMBOL | TEST CONDITIONS | LIMITS | | | UNITS |
|--------------------------|----------|--|--------|------|------|---------------|
| | | | MIN. | TYP. | MAX. | |
| Forward Voltage (DC) | V_{F1} | $I_F=100\text{mA}$ | — | — | 0.36 | V |
| | V_{F2} | $I_F=500\text{mA}$ | — | 0.4 | 0.46 | V |
| Reverse Current (DC) | I_R | $V_R=20\text{V}$ | — | — | 100 | μA |
| Inter-Terminal Capacity | C_t | $V_R=10\text{V}, f=1\text{MHz}$ | — | 12 | — | pF |
| Reverse Recovery Time *2 | t_{rr} | $I_F=I_R=10\text{mA}, i_{rr}=1\text{mA}$ | — | 10 | — | ns |

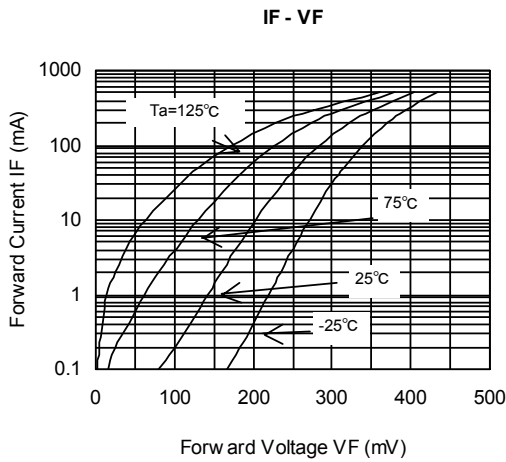
Note) 1. This product has a weakness for an electroshock such as electrostatic.

Please be careful of an electrification to human body and an electric leakage in the application.

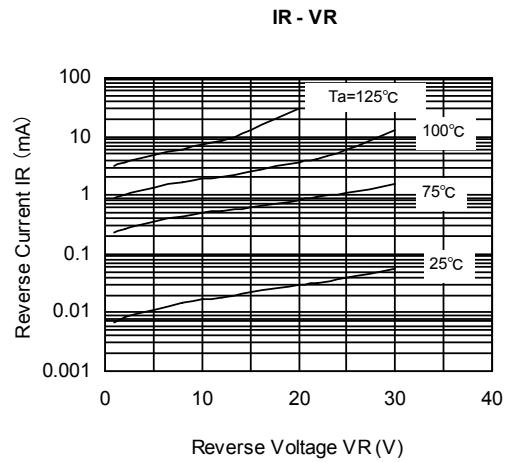
2. *2 : t_{rr} measurement circuit

TYPICAL PERFORMANCE CHARACTERISTICS

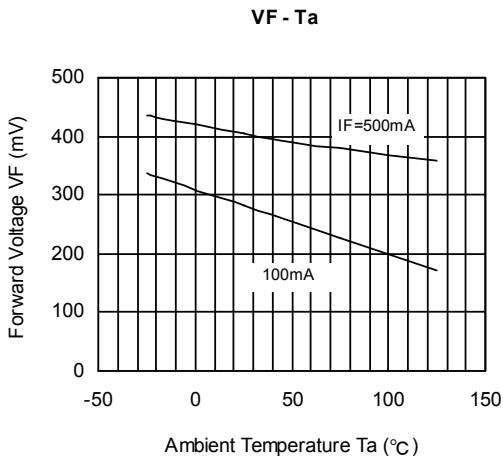
(1) Forward Voltage vs. Forward Current



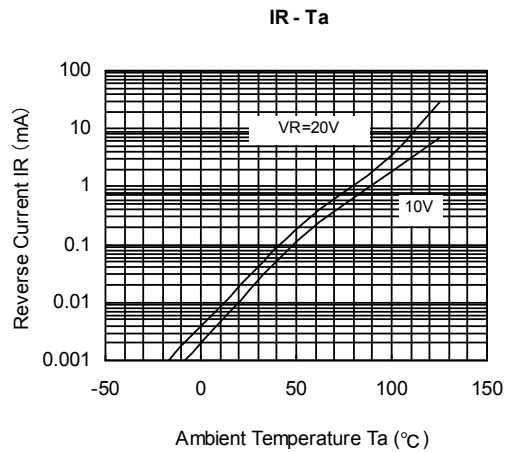
(2) Reverse Voltage vs. Reverse Current



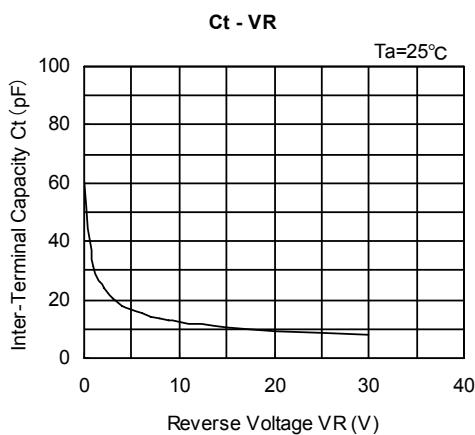
(3) Ambient Temperature vs. Forward Voltage



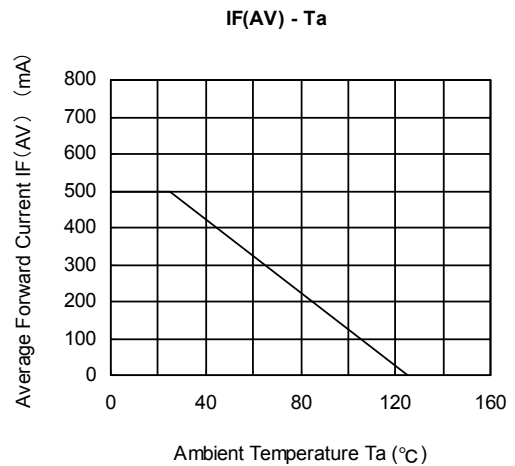
(4) Ambient Temperature vs. Reverse Current



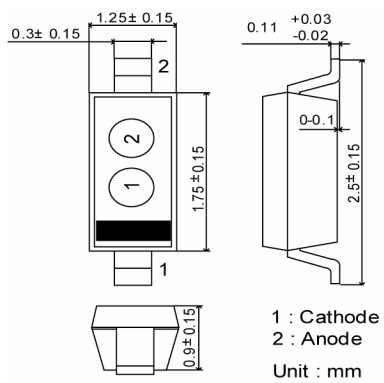
(5) Reverse Voltage vs. Inter-Terminal Capacity



(6) Ambient Temperature vs. Average Forward Current

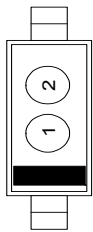


■ PACKAGING INFORMATION



SOD-323

■ MARKING RULE



- ① (Product Number)
- ② (Assembly Lot Number)

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