

Schottky Barrier Diode 1A, 40V Type

■ GENERAL DESCRIPTION

XB01SB04A2BR employs 1A level of a schottky diode in a small package equivalent to SOD-123 package. It is suitable for compact, low profile circuit designs. By giving the series low VF and low IR characteristics, it minimizes power supply loss.

■ APPLICATIONS

- Rectification of compact DC/DC converter
- Surge absorption caused by counter force of compact motors
- Energy-saving for notebook PCs, hand-set
- Protection against reverse connection of battery

■ FEATURES

- 1A, 40V Type**
- Low VF 0.49V @1A (TYP.)**
- Low IR 4 μ A @40V (TYP.)**
- Small Package : SOD-123**

■ ABSOLUTE MAXIMUM RATINGS

Ta = 25°C

PARAMETER	SYMBOL	RATINGS	UNIT
Repetitive Peak Reverse Voltage	V _{RM}	40	V
Reverse Voltage (DC)	V _R	40	V
Forward Current (Average)	I _{F(AV)}	1	A
Non Continuous Forward Surge Current*1	I _{FSM}	10	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

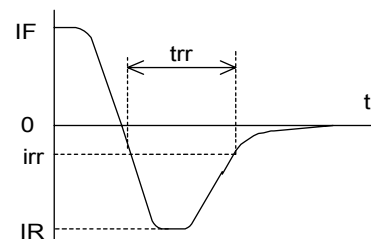
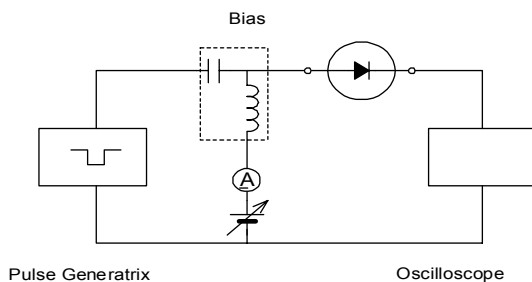
Ta=25°C

PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNITS
			MIN.	TYP.	MAX.	
Forward Voltage (DC)	V _F	I _F =1A	—	0.49	0.54	V
Reverse Current (DC)	I _R	V _R =40V	—	4	200	μ A
Inter-Terminal Capacity	C _t	V _R =10V, f=1MHz	—	35	—	pF
Reverse Recovery Current *2	t _{rr}	I _F =I _R =10mA, i _{rr} =1mA, R _L =100 Ω	—	25	—	ns

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

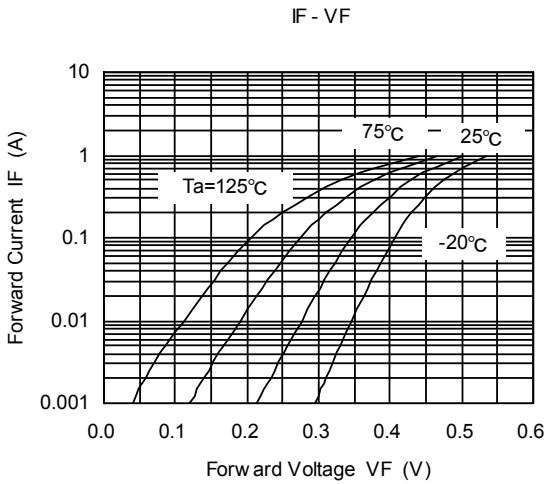
Please be careful of an electrification to human body and an electric leakage in the application.

2. *2: t_{rr} measurement circuit

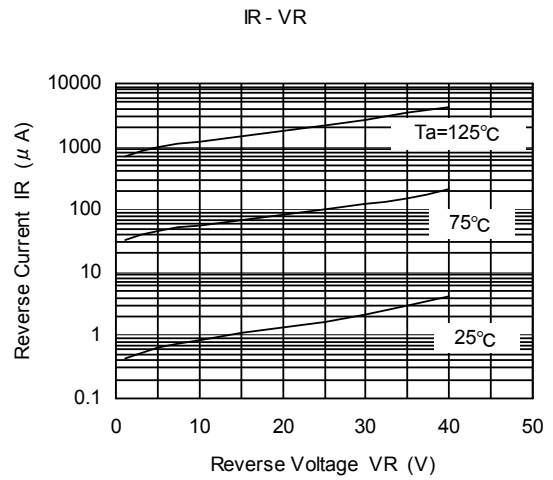


■ TYPICAL PERFORMANCE CHARACTERISTICS

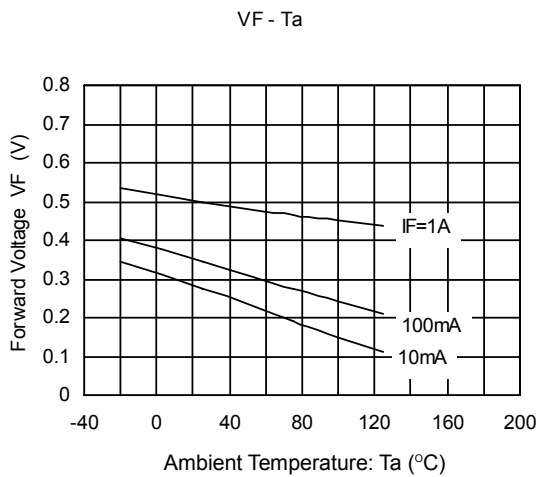
(1) Forward Voltage vs. Forward Current



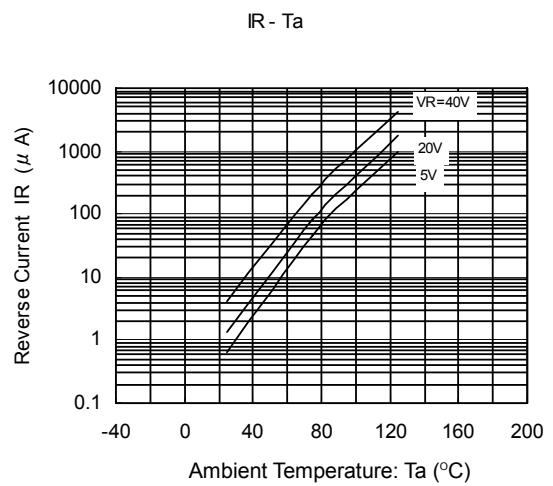
(2) Reverse Voltage vs. Reverse Current



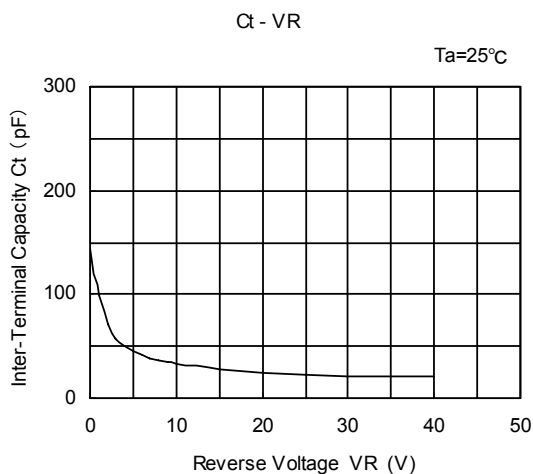
(3) Ambient Temperature vs. Forward Voltage



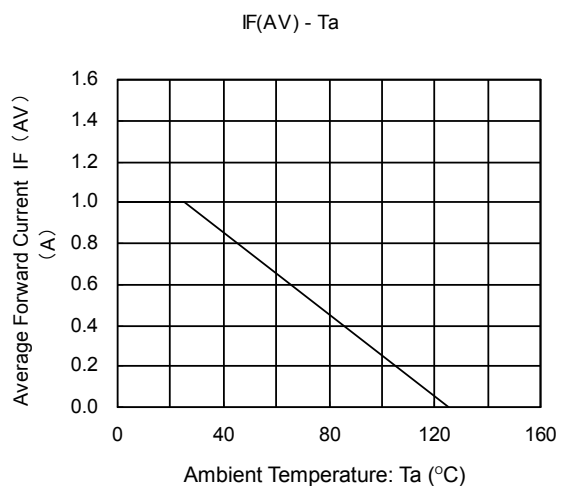
(4) Ambient Temperature vs. Reverse Current



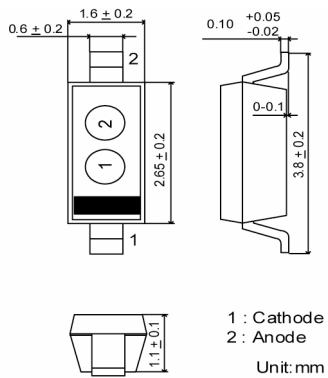
(5) Reverse Voltage vs. Inter-Terminal Capacity



(6) Ambient Temperature vs. Average Forward Current



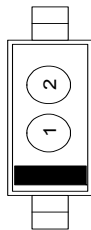
■ PACKAGING INFORMATION



SOD-123

■ MARKING RULE

● SOD-123



- ①1 (Product Number)
- ②Assembly Lot Number

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