

XB01SB04A2BR

ETR1601_001

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	VRM	40	V
Reverse Voltage (DC)	VR	40	V
Forward Current (Average)	IF(AV)	1	A
Non Continuous Forward Surge Current*1	IFSM	10	A
Junction Temperature	Tj	125	°C
Storage Temperature Range	Tstg	-55~+150	°C

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

ELECTRICAL CHARACTERISTICS

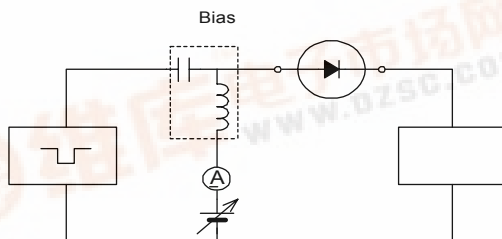
Ta=25°C

PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNITS
			MIN.	TYP.	MAX.	
Forward Voltage (DC)	VF	IF=1A	—	0.49	0.54	V
Reverse Current (DC)	IR	VR=40V	—	4	200	μ A
Inter-Terminal Capacity	Ct	VR=10V, f=1MHz	—	35	—	pF
Reverse Recovery Current *2	trr	IF=IR=10mA, irr=1mA, RL=100 Ω	—	25	—	ns

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

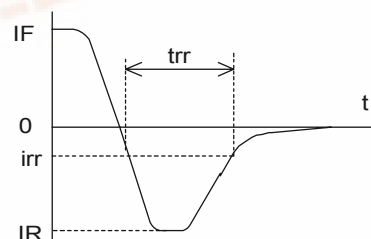
Please be careful of an electrification to human body and an electric leakage in the application.

2. *2: trr measurement circuit



Pulse Generatrix

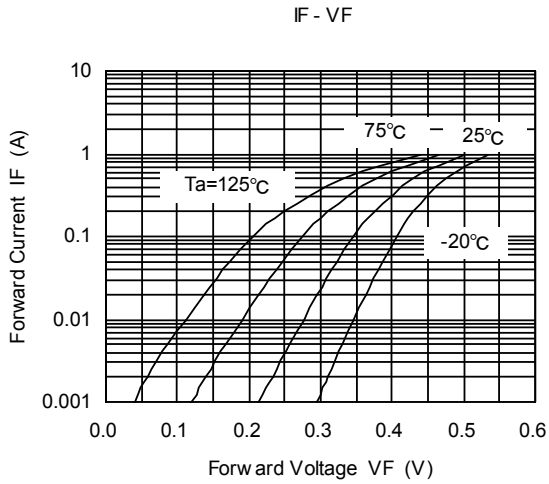
Oscilloscope



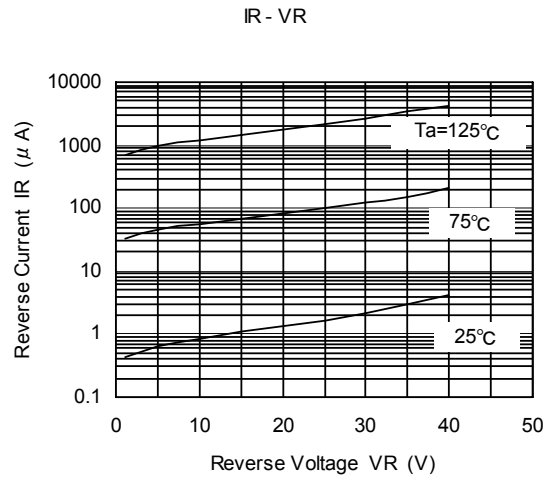
XB01SB04A2BR

TYPICAL PERFORMANCE CHARACTERISTICS

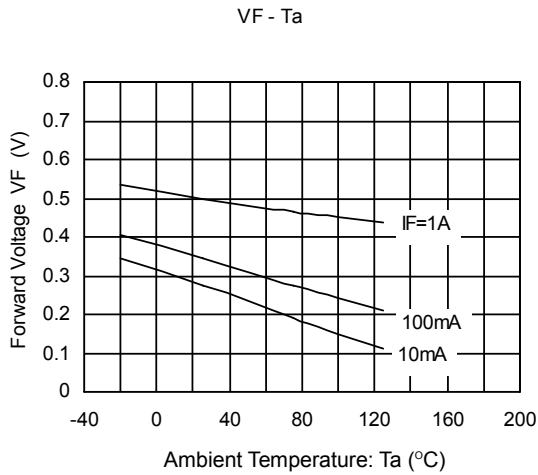
(1) Forward Voltage vs. Forward Current



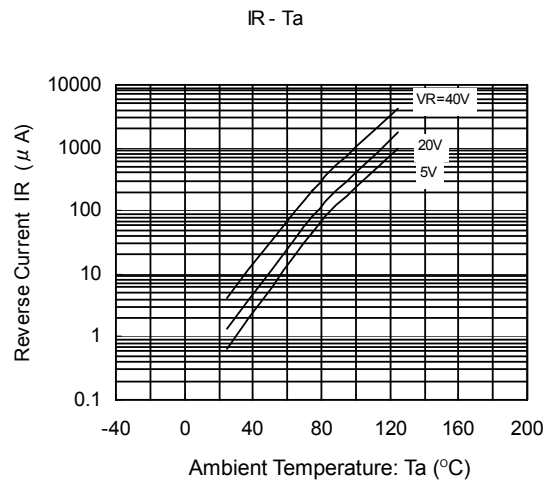
(2) Reverse Voltage vs. Reverse Current



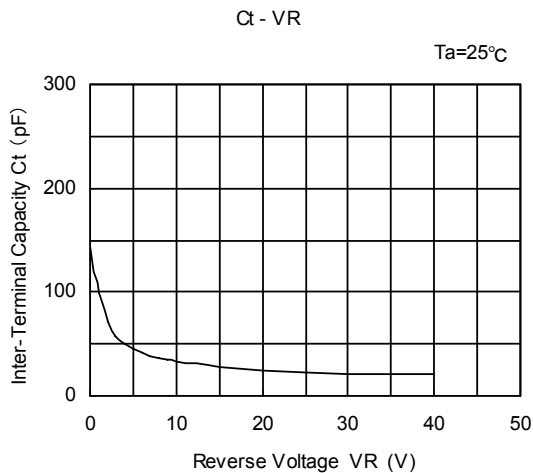
(3) Ambient Temperature vs. Forward Voltage



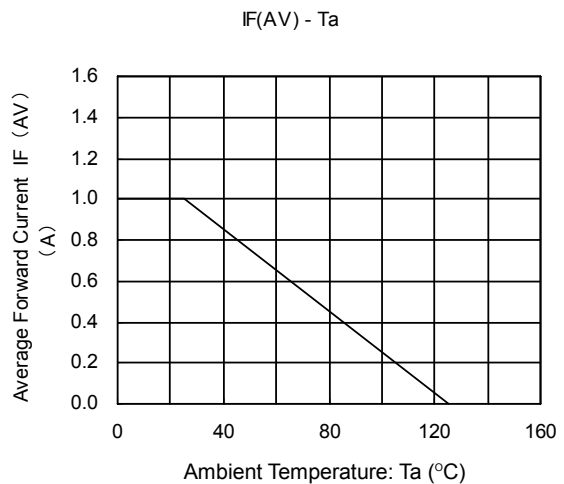
(4) Ambient Temperature vs. Reverse Current



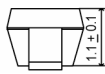
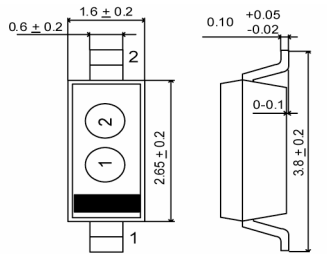
(5) Reverse Voltage vs. Inter-Terminal Capacity



(6) Ambient Temperature vs. Average Forward Current



■ PACKAGING INFORMATION

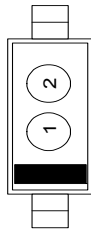


1 : Cathode
2 : Anode
Unit:mm

SOD-123

■ MARKING RULE

● SOD-123



①1 (Product Number)
②Assembly Lot Number

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