

# XB0ASB03A1BR



Schottky Barrier Diode 500mA 30V Type

500mA, 30V Type

Low VF, Actual Power =400mV @500mA

Small Package : SOD-323

## GENERAL DESCRIPTION

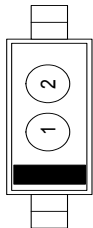
Small package, SOD-323

Suitable for compact, low profile circuit designs

Low Forward Voltage (@IF=500mA, Actual VF=400mV)

Short reverse recovery time (Actual trr=10ns)

## MARKING RULE



0 (Product Number)  
Assembly Lot Number

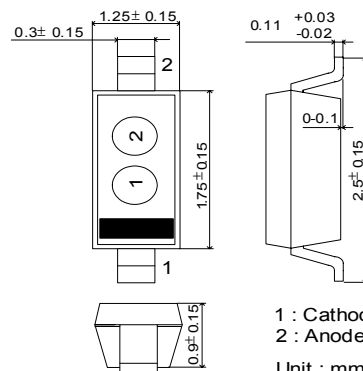
## APPLICATIONS

Rectification of compact DC/DC converter

Surge absorption caused by counter force of compact motors

Protection against reverse connection of battery

## PACKAGING INFORMATION



SOD-323

## ABSOLUTE MAXIMUM RATINGS

Ta = 25

PARAMETER	SYMBOL	RATINGS	UNIT
Repetitive Peak Reverse Voltage	V <sub>RM</sub>	30	V
Reverse Voltage (DC)	V <sub>R</sub>	20	V
Forward Current (Average)	I <sub>F(AV)</sub>	0.5	A
Non Continuous Forward Surge Current*1	I <sub>FSM</sub>	5	A
Junction Temperature	T <sub>J</sub>	125	
Storage Temperature Range	T <sub>stg</sub>	-55~+150	

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

## ELECTRICAL CHARACTERISTICS

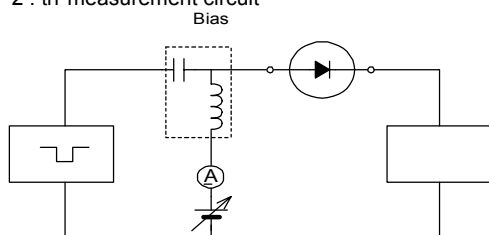
Ta=25

PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNITS
			MIN.	TYP.	MAX.	
Forward Voltage (DC)	V <sub>F1</sub>	I <sub>F</sub> =100mA	-	-	0.36	V
	V <sub>F2</sub>	I <sub>F</sub> =500mA	-	0.4	0.46	V
Reverse Current (DC)	I <sub>R</sub>	V <sub>R</sub> =20V	-	-	100	μA
Inter-Terminal Capacity	C <sub>t</sub>	V <sub>R</sub> =10V, f=1MHz	-	12	-	pF
Reverse Recovery Time *2	trr	I <sub>F</sub> =I <sub>R</sub> =10mA, irr=1mA	-	10	-	ns

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

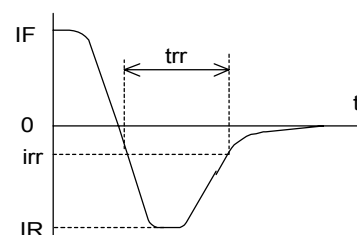
Please be careful of an electrification to human body and an electric leakage in the application.

2. \*2 : trr measurement circuit



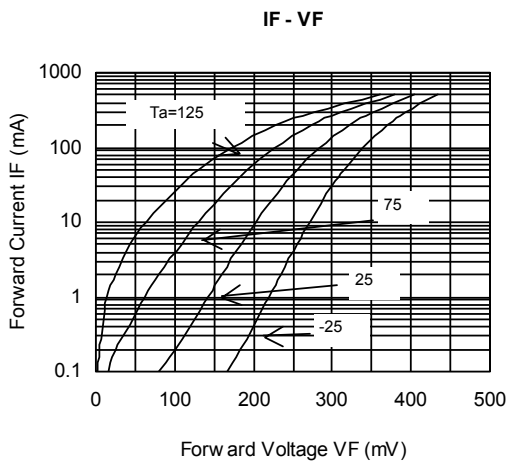
Pulse Generatrix

Oscilloscope

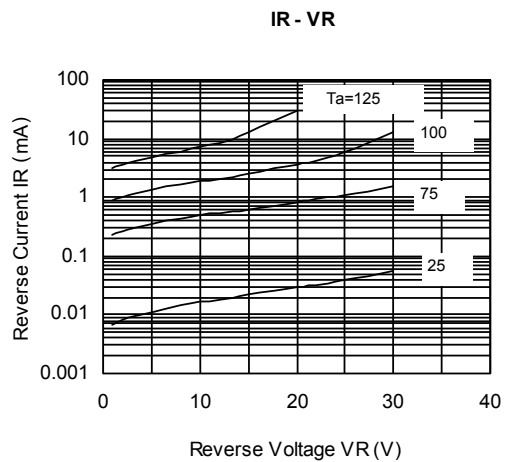


## TYPICAL PERFORMANCE CHARACTERISTICS

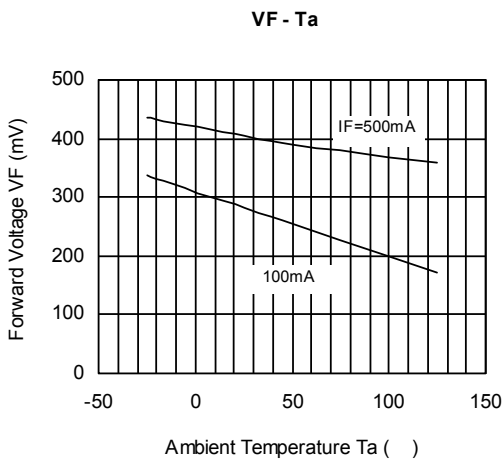
(1) Forward Voltage vs. Forward Current



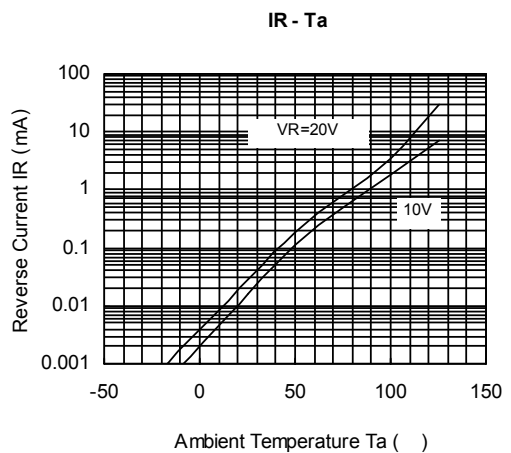
(2) Reverse Voltage vs. Reverse Current



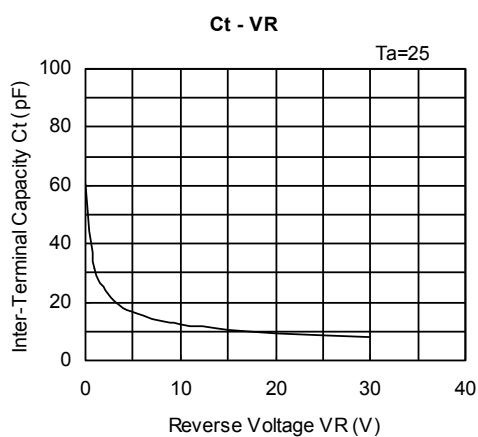
(3) Ambient Temperature vs. Forward Voltage



(4) Ambient Temperature vs. Reverse Current



(5) Reverse Voltage vs. Inter-Terminal Capacity



(6) Ambient Temperature vs. Average Forward Current

