XB0ASB03A1BR

TOREX

ETR1602_001

Schottky Barrier Diode 500mA 30V Type

■GENERAL DESCRIPTION

●Small package, SOD-323
Suitable for compact, low profile circuit designs
●Low Forward Voltage (VF=400mV@IF=500mA)
●Short reverse recovery time (trr=10ns)

■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 VF 400mV @ 500mA (TYP.)
Small Package : SOD-323

■ABSOLUTE MAXIMUM RATINGS

Ta = 25℃

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	Tj	125	℃
Storage Temperature Range	Tstg	-55~+150	℃

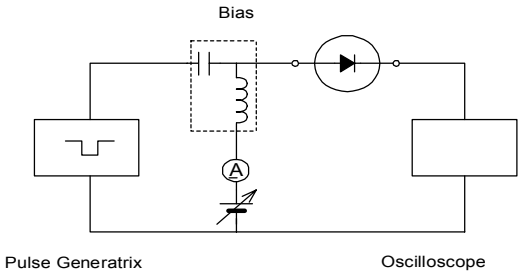
*1: Non continuous high amplitude 60Hz half-sine wave.

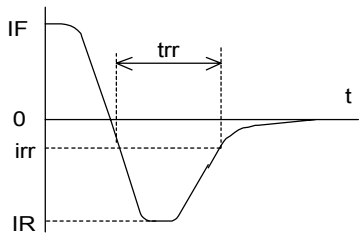
■ELECTRICAL CHARACTERISTICS

Ta=25℃

PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNITS
			MIN.	TYP.	MAX.	
Forward Voltage (DC)	V_F1	I_F=100mA	–	–	0.36	V
	V_F2	I_F=500mA	–	0.4	0.46	V
Reverse Current (DC)	I_R	V_R=20V	–	–	100	μA
Inter-Terminal Capacity	Ct	V_R=10V, f=1MHz	–	12	–	pF
Reverse Recovery Time *2	trr	I_F=I_R=10mA, irr=1mA	–	10	–	ns

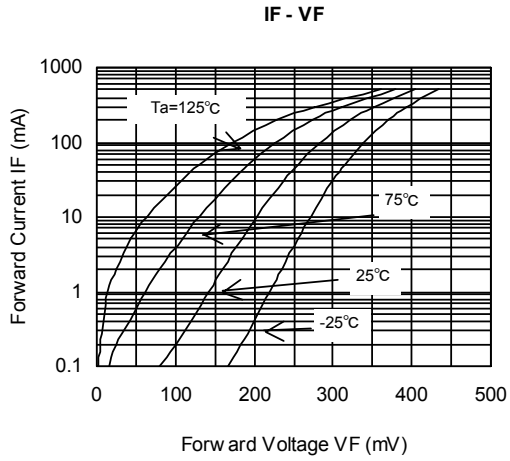
Note) 1. This product has a weakness for an electroshock such as electrostatic.
Please be careful of an electrification to human body and an electric leakage in the application.
2. *2 : trr measurement circuit



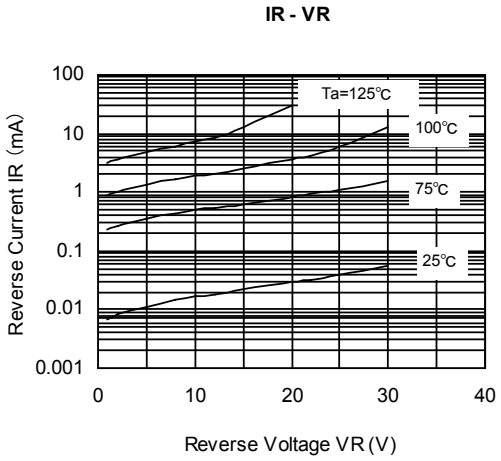


■TYPICAL PERFORMANCE CHARACTERISTICS

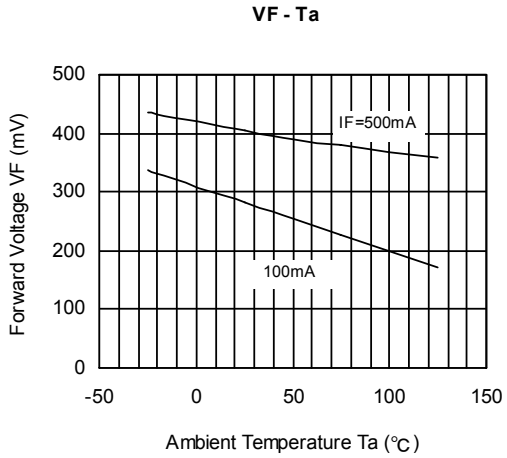
(1) Forward Voltage vs. Forward Current



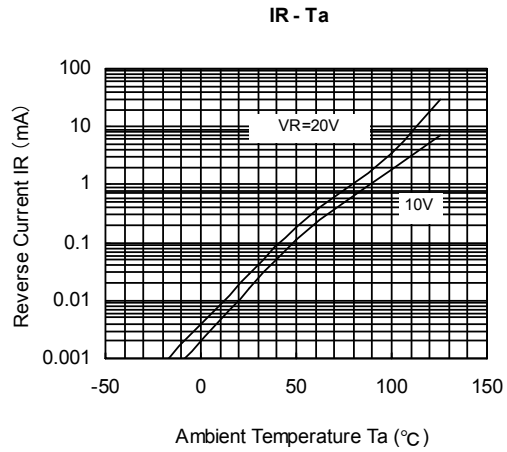
(2) Reverse Voltage vs. Reverse Current



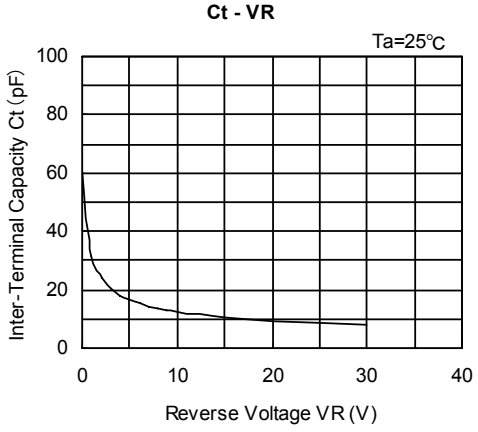
(3) Ambient Temperature vs. Forward Voltage



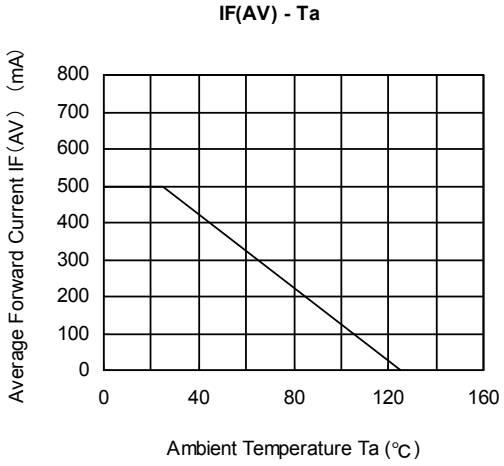
(4) Ambient Temperature vs. Reverse Current



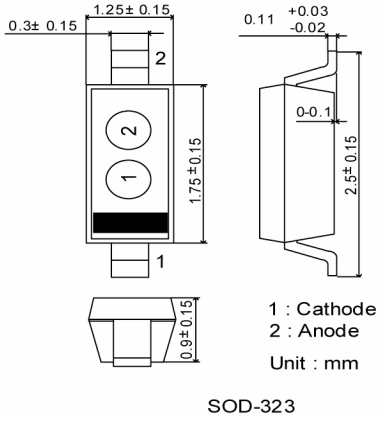
(5) Reverse Voltage vs. Inter-Terminal Capacity



(6) Ambient Temperature vs. Average Forward Current

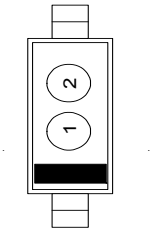


■PACKAGING INFORMATION



SOD-323

■MARKING RULE



①0 (Product Number)
②Assembly Lot Number

1. The products and product specifications contained herein are subject to change without notice to improve performance characteristics. Consult us, or our representatives before use, to confirm that the information in this catalog is up to date.
2. We assume no responsibility for any infringement of patents, patent rights, or other rights arising from the use of any information and circuitry in this catalog.
3. Please ensure suitable shipping controls (including fail-safe designs and aging protection) are in force for equipment employing products listed in this catalog.
4. The products in this catalog are not developed, designed, or approved for use with such equipment whose failure of malfunction can be reasonably expected to directly endanger the life of, or cause significant injury to, the user.
   (e.g. Atomic energy; aerospace; transport; combustion and associated safety equipment thereof.)
5. Please use the products listed in this catalog within the specified ranges.
   Should you wish to use the products under conditions exceeding the specifications, please consult us or our representatives.
6. We assume no responsibility for damage or loss due to abnormal use.
7. All rights reserved. No part of this catalog may be copied or reproduced without the prior permission of Torex Semiconductor Ltd.

TOREX SEMICONDUCTOR LTD.