

Schottky Barrier Diode, 500mA, 30V Type

FEATURES

Forward Voltage	: $V_F=0.40V$ (TYP.)
Forward Current	: $I_{F(AV)}=500mA$
Repetitive Peak Reverse Voltage	: $V_{RM}=30V$
Environmentally Friendly	: EU RoHS Compliant, Pb Free

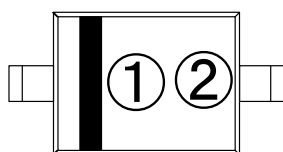
ABSOLUTE MAXIMUM RATINGS

$T_a=25^\circ C$

PARAMETER	SYMBOL	RATINGS	UNIT
Repetitive Peak Voltage	V_{RM}	30	V
Reverse Voltage (DC)	V_R	20	V
Forward Current (Average)	$I_{F(AV)}$	500	mA
Non Continuous Forward Surge Current ^{*1}	I_{FSM}	5	A
Junction Temperature	T_j	125	$^\circ C$
Storage Temperature Range	T_{stg}	-55~+150	$^\circ C$

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

MARKING RULE



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

PRODUCT NAME

PRODUCT NAME	DEVICE ORIENTATION
XBS053V13R	SOD-323A
XBS053V13R-G	SOD-323A(Halogen & Antimony free)

* The "-G" suffix indicates that the products are Halogen and Antimony free as well as being fully RoHS compliant.

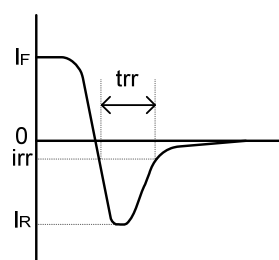
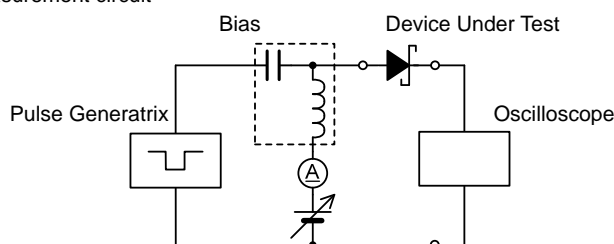
* The device orientation is fixed in its embossed tape pocket.

ELECTRICAL CHARACTERISTICS

$T_a=25^\circ C$

PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNIT
			MIN.	TYP.	MAX.	
Forward Voltage	V_{F1}	$I_F=100mA$	-	0.28	-	V
	V_{F2}	$I_F=500mA$	-	0.40	0.47	V
Reverse Current	I_R	$V_R=20V$	-	-	100	μA
Inter-Terminal Capacity	C_t	$V_R=10V, f=1MHz$	-	12	-	pF
Reverse Recovery Time ^{*2}	t_{rr}	$I_F=I_R=10mA, i_{rr}=1mA$	-	8	-	ns

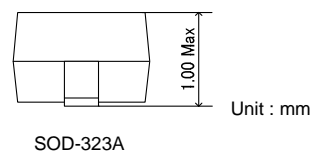
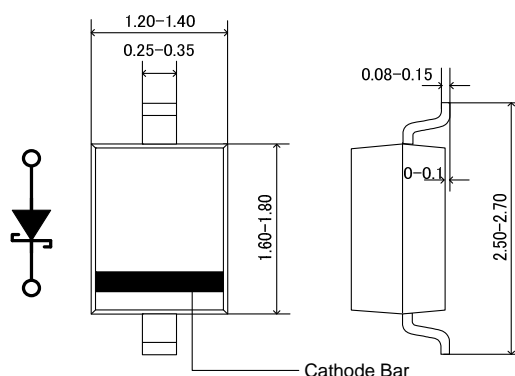
*2 : t_{rr} measurement circuit



APPLICATIONS

- Rectification
- Protection against reverse connection of battery

PACKAGING INFORMATION

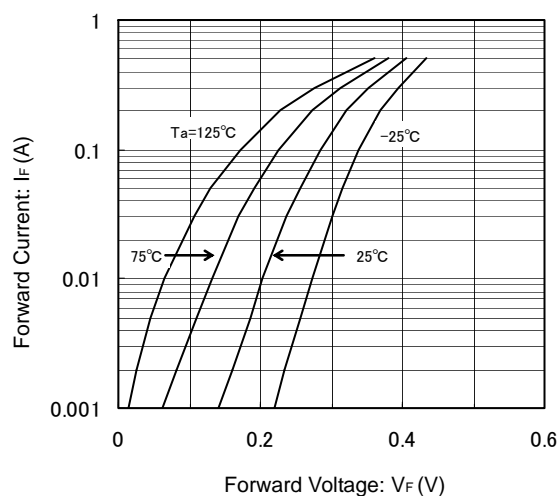


SOD-323A

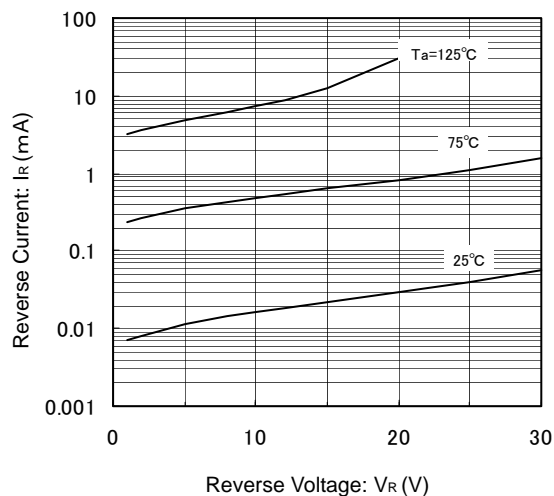
Unit : mm

TYPICAL PERFORMANCE CHARACTERISTICS

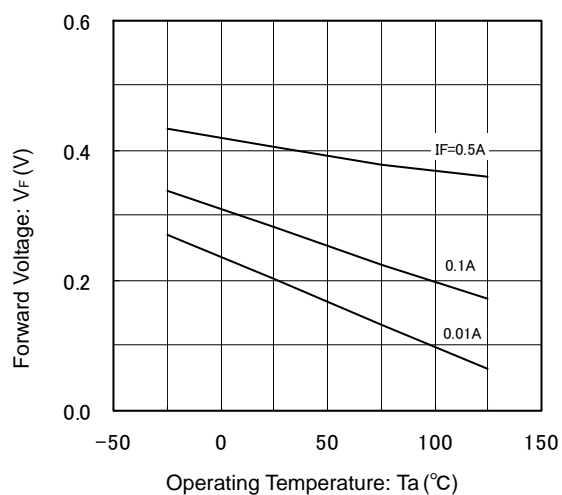
(1) Forward Current vs. Forward Voltage



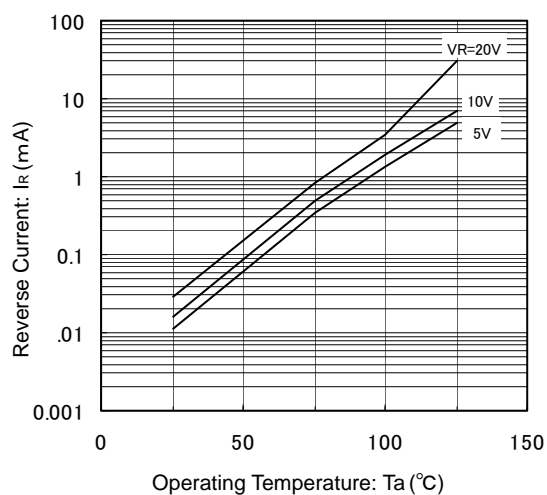
(2) Reverse Current vs. Reverse Voltage



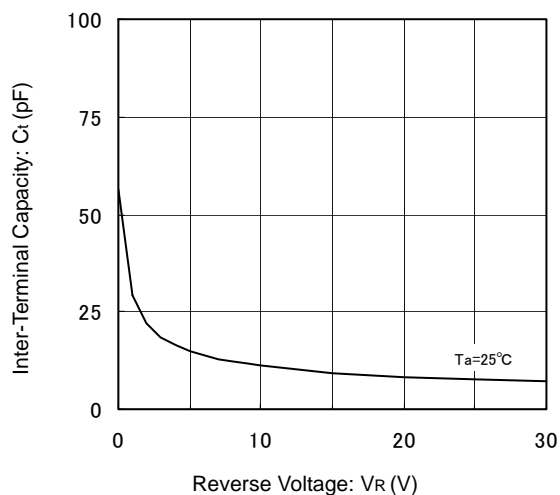
(3) Forward Voltage vs. Operating Temperature



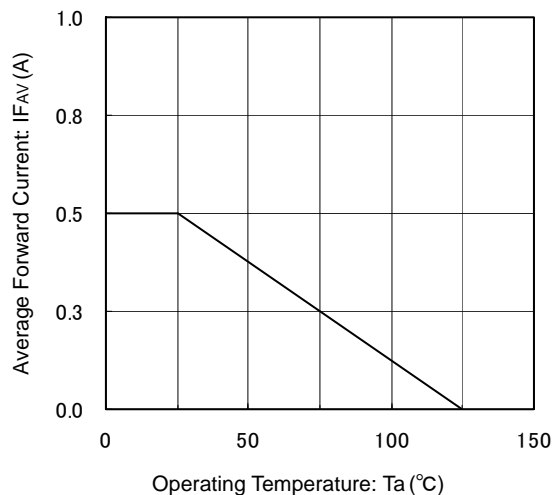
(4) Reverse Current vs. Operating Temperature



(5) Inter-Terminal Capacity vs. Reverse Voltage



(6) Average Forward Current vs. Operating Temperature



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