

XBS053V13

ETR1606-002

Schottky Barrier Diode, 500mA, 30V Type

FEATURES

Forward Voltage : $V_F=0.40V$ (TYP.)
Forward Current : $I_{F(AV)}=500mA$
Repetitive Peak Reverse Voltage : $V_{RM}=30V$

APPLICATIONS

Rectification
Protection against reverse connection of battery

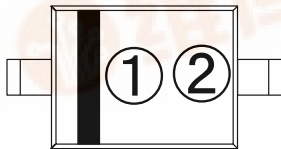
ABSOLUTE MAXIMUM RATINGS

 $T_a=25$

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	
Storage Temperature Range	T_{stg}	-55 ~ +150	

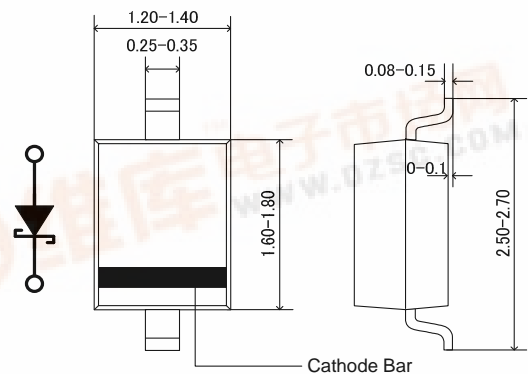
^{*1} : Non continuous high amplitude 60Hz half-sine wave.

MARKING RULE



: 0 (Product Number)
: Assembly Lot Number

PACKAGING INFORMATION



SOD-323A

Unit : mm

PRODUCT NAME

PRODUCT NAME	DEVICE ORIENTATION
XBS053V13	R : Embossed tape, standard feed

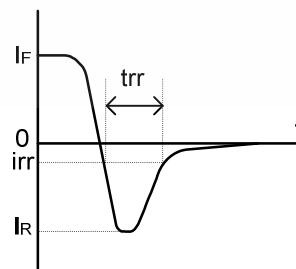
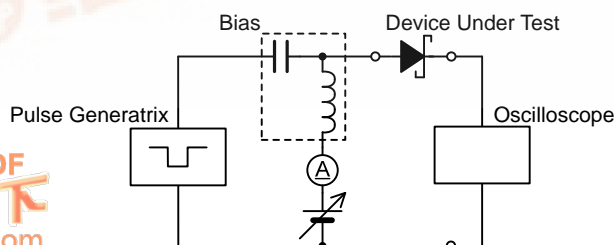
^{*} Please put the device orientation type "R".

ELECTRICAL CHARACTERISTICS

 $T_a=25$

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}	$I_F=I_R=10mA, irr=1mA$	-	8	-	ns

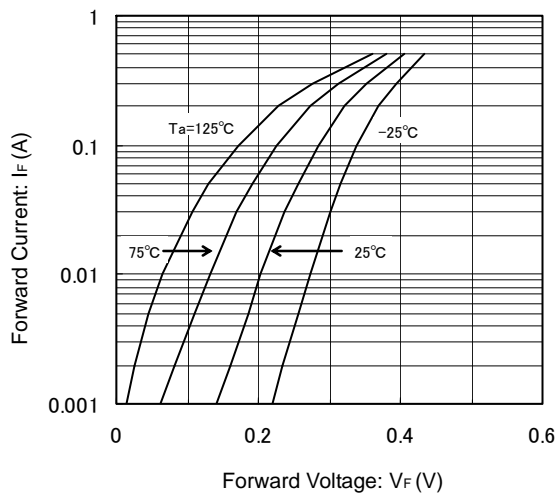
^{*2} : t_{rr} measurement circuit



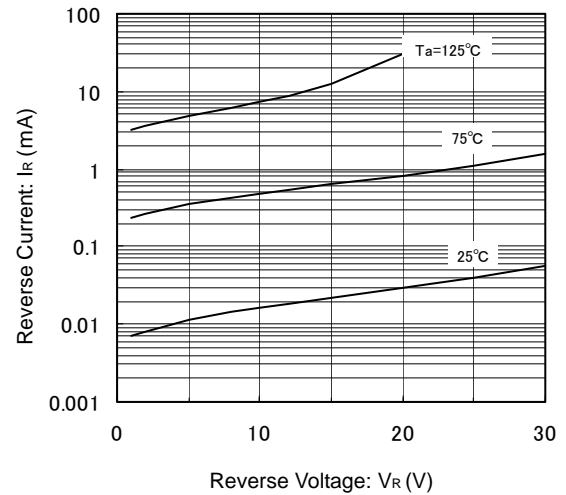
XBS053V13

TYPICAL PERFORMANCE CHARACTERISTICS

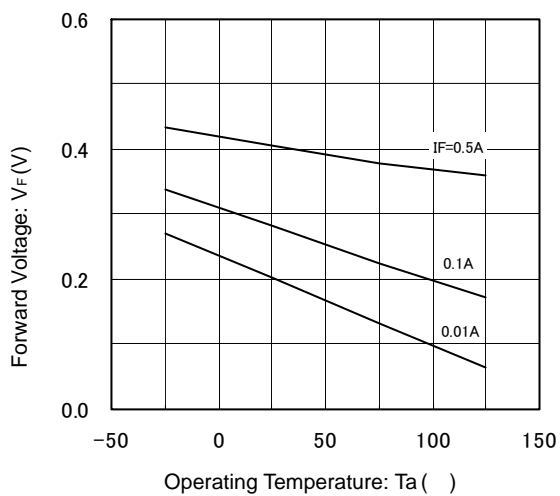
(1) Forward Current vs. Forward Voltage



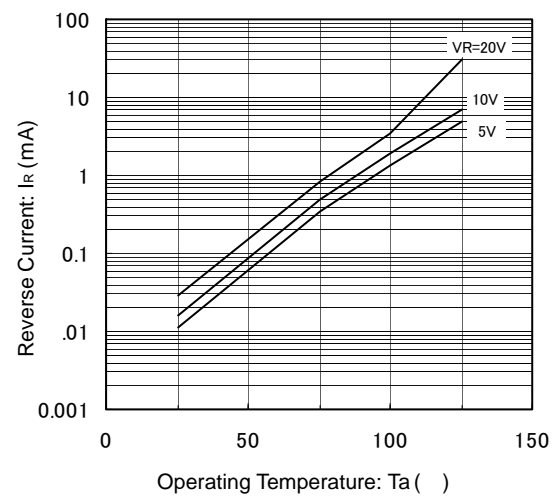
(2) Reverse Current vs. Reverse Voltage



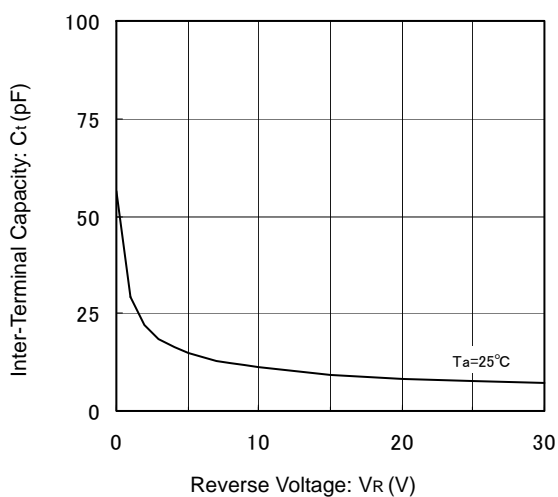
(3) Forward Voltage vs. Operating Temperature



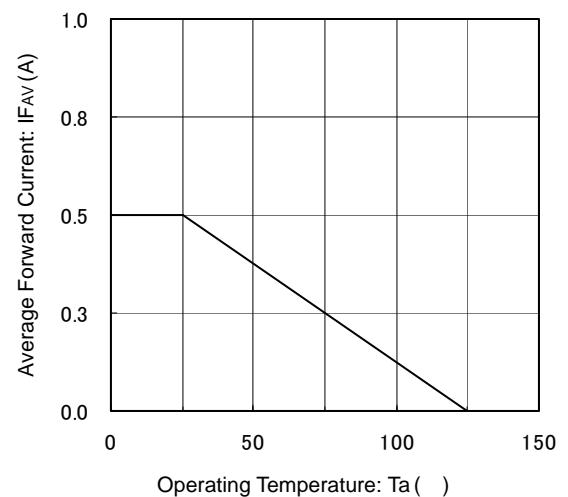
(4) Reverse Current vs. Operating Temperature



(5) Inter-Terminal Capacity vs. Reverse Voltage



(6) Average Forward Current vs. Operating Temperature



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