



**THE DATASHEET OF  
XBS053V15R-G**



# XBS053V15R-G

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

$T_a=25^\circ C$

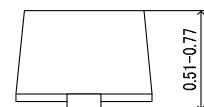
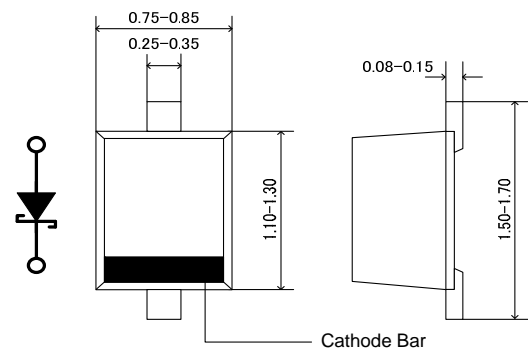
PARAMETER	SYMBOL	RATINGS	UNIT
Repetitive Peak Reverse Voltage	$V_{RM}$	30	V
Reverse Voltage (DC)	$V_R$	20	V
Forward Current (Average)	$I_{F(AV)}$	500	mA
Non Continuous Forward Surge Current *1	$I_{FSM}$	5	A
Junction Temperature	$T_j$	125	$^\circ C$
Storage Temperature Range	$T_{stg}$	-55~+150	$^\circ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

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

## APPLICATIONS

- Rectification
- Protection against reverse connection of battery

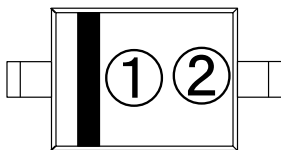
## PACKAGING INFORMATION



SOD-523

Unit : mm

## MARKING RULE



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

## PRODUCT NAME

PRODUCT NAME	DEVICE ORIENTATION
XBS053V15R-G	SOD-523(Halogen & Antimony free)
XBS053V15R	SOD-523

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

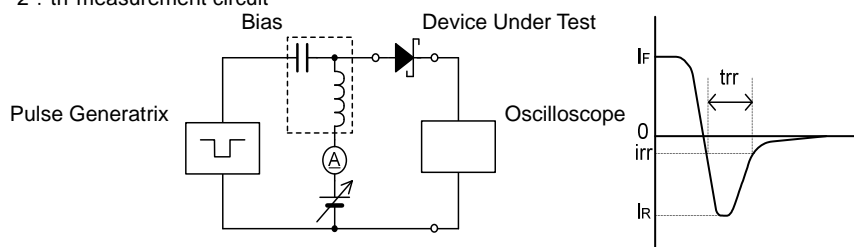
\* The device orientation is fixed in its embossed tape pocket.

## ELECTRICAL CHARACTERISTICS

$T_a=25^\circ C$

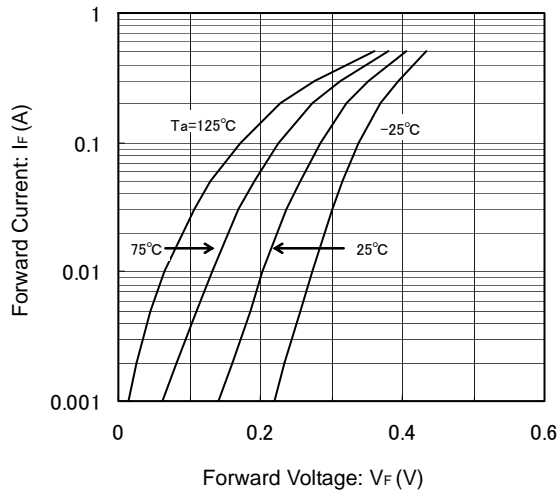
PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNIT
			MIN.	TYP.	MAX.	
Forward Voltage	$V_{F1}$	$I_F=100mA$	-	0.28	-	V
	$V_{F2}$	$I_F=500mA$	-	0.40	0.47	V
Reverse Current	$I_R$	$V_R=20V$	-	-	100	$\mu A$
Inter-Terminal Capacity	$C_t$	$V_R=10V, f=1MHz$	-	12	-	pF
Reverse Recovery Time *2	$t_{rr}$	$I_F=I_R=10mA,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

\*2 :  $t_{rr}$  measurement circuit

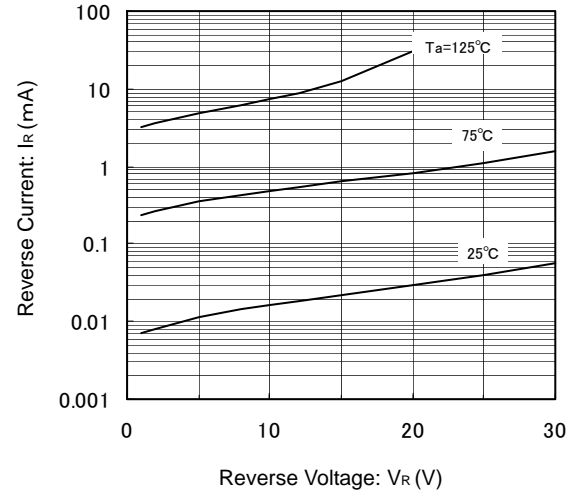


## TYPICAL PERFORMANCE CHARACTERISTICS

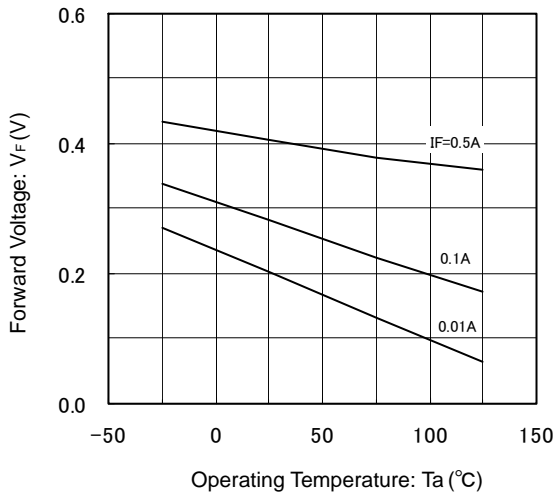
(1) Forward Current vs. Forward Voltage



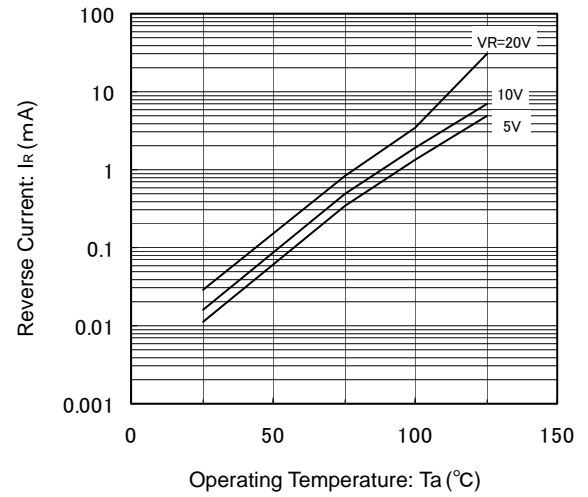
(2) Reverse Current vs. Reverse Voltage



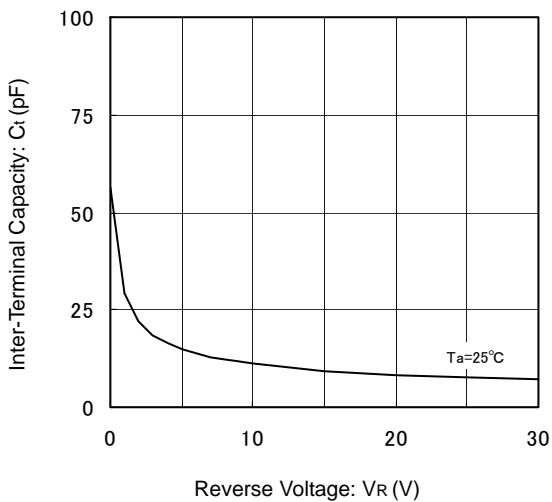
(3) Forward Voltage vs. Operating Temperature



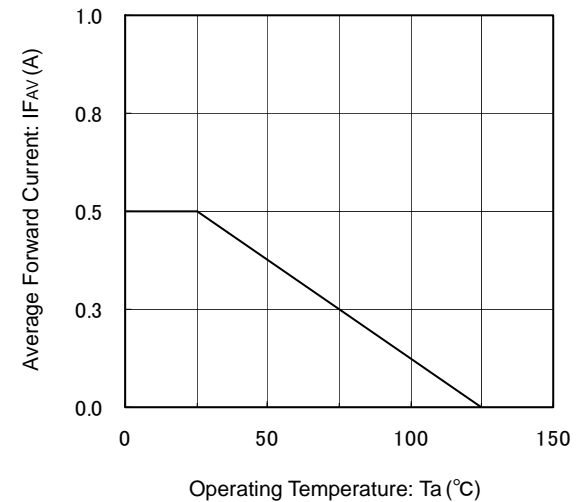
(4) Reverse Current vs. Operating Temperature



(5) Inter-Terminal Capacity vs. Reverse Voltage



(6) Average Forward Current vs. Operating Temperature



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