

# XBS204S17R-G

Schottky Barrier Diode, 2A, 40V Type

## FEATURES

- Forward Voltage :  $V_F=0.485V$  (TYP.)
- Forward Current :  $I_{F(AVE)}=2A$
- Repetitive Peak Reverse Voltage :  $V_{RM}=40V$

## APPLICATIONS

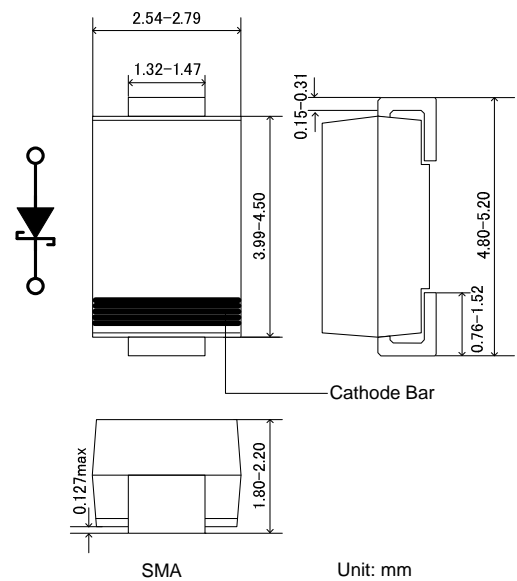
- Rectification
- Protection against reverse connection of battery

## ABSOLUTE MAXIMUM RATINGS

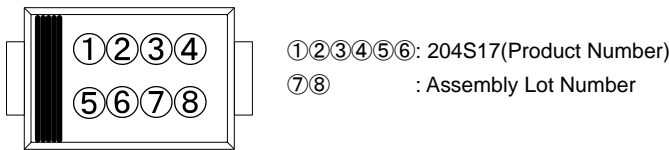
$T_a=25^\circ C$

PARAMETER	SYMBOL	RATINGS	UNIT
Repetitive Peak Reverse Voltage	$V_{RM}$	40	V
Reverse Voltage (DC)	$V_R$	40	V
Forward Current (Average)	$I_{F(AVE)}$	2	A
Non Continuous Forward Surge Current <sup>*1</sup>	$I_{FSM}$	50	A
Junction Temperature	$T_j$	125	$^\circ C$
Storage Temperature Range	$T_{stg}$	-55~+150	$^\circ C$

## PACKAGING INFORMATION



## MARKING RULE



## PRODUCT NAME

PRODUCT NAME	DEVICE ORIENTATION
XBS204S17R-G	SMA (Halogen & Antimony free)
XBS204S17R	SMA

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

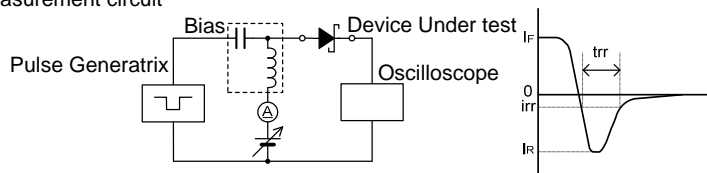
\* The device orientation is fixed in its embossed tape pocket.

## ELECTRICAL CHARACTERISTICS

$T_a=25^\circ C$

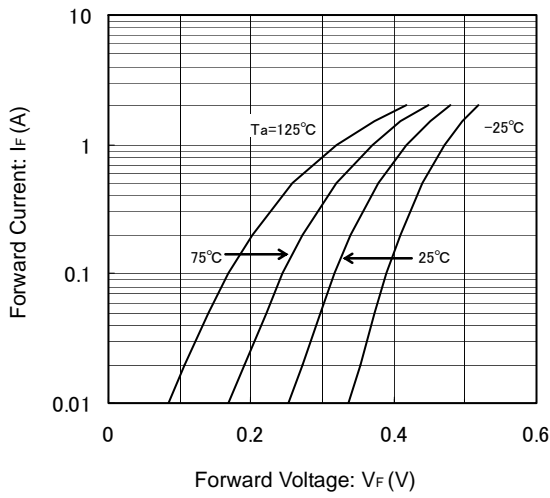
PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNIT
			MIN.	TYP.	MAX.	
Forward Voltage	$V_{F1}$	$I_F=200\mu A$	-	0.15	-	V
	$V_{F2}$	$I_F=2A$	-	0.485	0.54	V
Reverse Current	$I_{R1}$	$V_R=20V$	-	2.5	-	$\mu A$
	$I_{R2}$	$V_R=40V$	-	6	200	$\mu A$
Inter-Terminal Capacity	$C_t$	$V_R=1V, f=1MHz$	-	180	-	pF
Reverse Recovery Time <sup>*2</sup>	$t_{rr}$	$I_F=I_R=10mA, irr=1mA$	-	51	-	ns

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

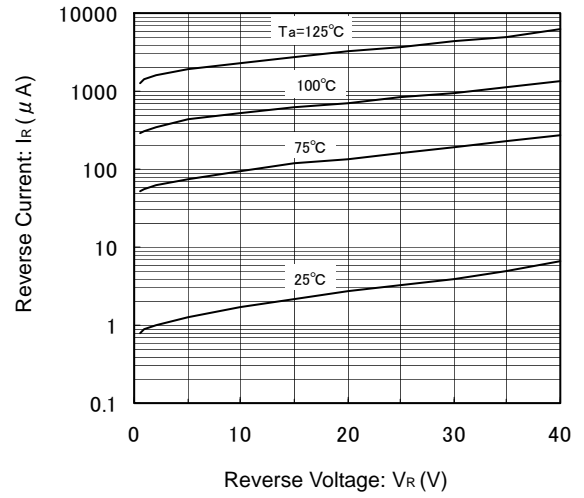


## TYPICAL PERFORMANCE CHARACTERISTICS

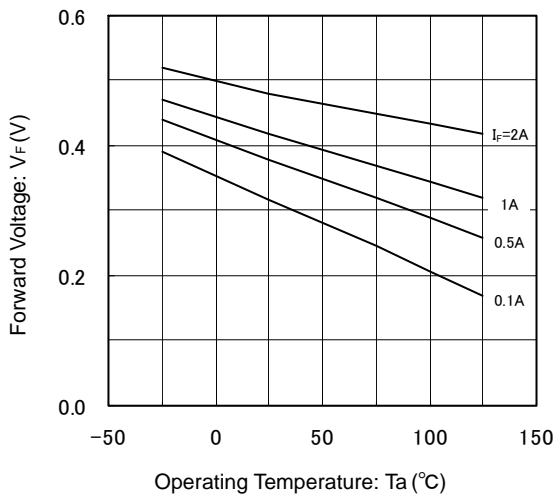
(1) Forward Current vs. Forward Voltage



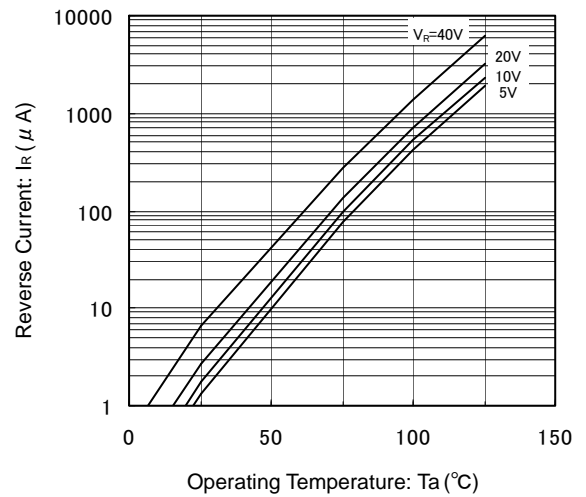
(2) Reverse Current vs. Reverse Voltage



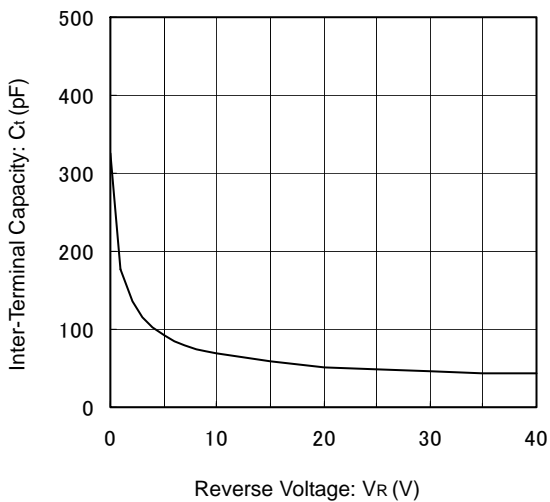
(3) Forward Voltage vs. Operating Temperature



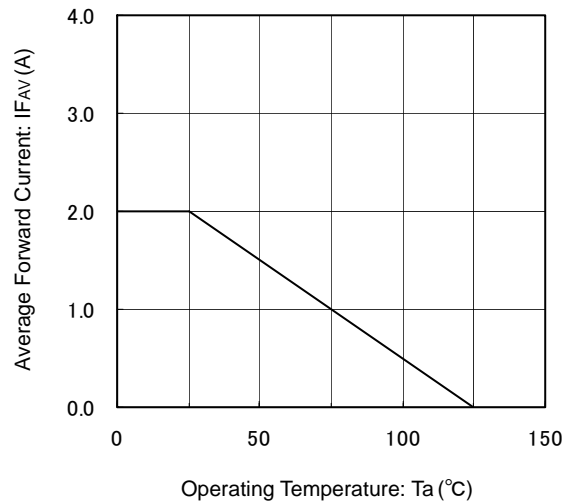
(4) Reverse Current vs. Operating Temperature



(5) Inter-Terminal Capacity vs. Reverse Voltage



(6) Average Forward Current vs. Operating Temperature



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