

## Schottky Barrier Diode, 3A, 30V Type

### FEATURES

Forward Voltage	: $V_F=0.355V$ (TYP.)
Forward Current	: $I_{F(AV)}=3A$
Repetitive Peak Reverse Voltage	: $V_{RM}=30V$

### APPLICATIONS

- Rectification
- Protection against reverse connection of battery

### ABSOLUTE MAXIMUM RATINGS

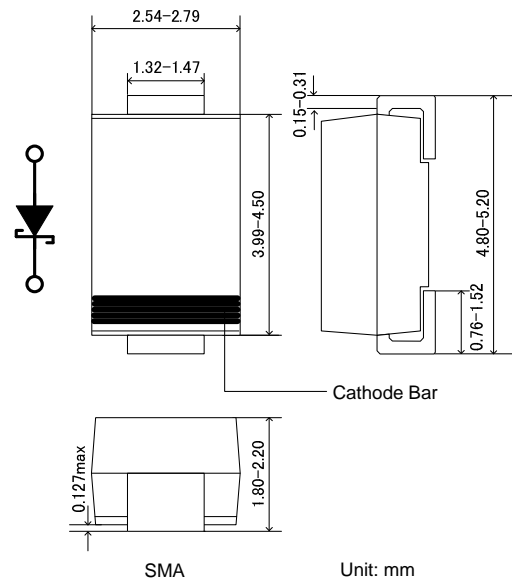
 $T_a=25$ 

PARAMETER	SYMBOL	RATINGS	UNIT
Repetitive Peak Reverse Voltage	$V_{RM}$	30	V
Reverse Voltage (DC)	$V_R$	30	V
Forward Current (Average)	$I_{F(AV)}$	3	A
Non Continuous Forward Surge Current <sup>*1</sup>	$I_{FSM}$	60	A
Junction Temperature	$T_j$	125	
Storage Temperature Range	$T_{stg}$	-55 ~ +150	

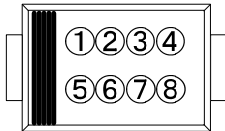
\*1 : Non continuous high amplitude 60Hz half-sine wave.

\* When the IC is operated continuously under high load conditions such as high temperature, high current and high voltage, it may have the case that reliability reduces drastically even if under the absolute maximum ratings. Adequate "Derating" should be taken into consideration while designing.

### PACKAGING INFORMATION



### MARKING RULE



: 303V17(Product Number)  
: Assembly Lot Number

### PRODUCT NAME

PRODUCT NAME	DEVICE ORIENTATION
XBS303V17	R : Embossed tape, standard feed

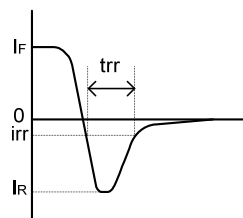
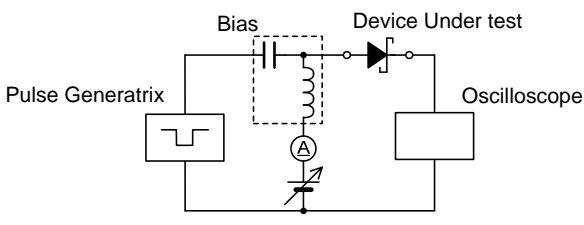
\* Please put the device orientation type "R".

### ELECTRICAL CHARACTERISTICS

 $T_a=25$ 

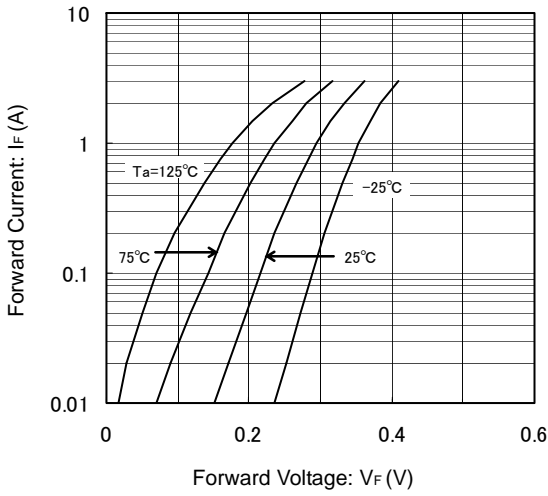
PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNIT
			MIN.	TYP.	MAX.	
Forward Voltage	$V_{F1}$	$I_F=0.5A$	-	0.265	0.34	V
	$V_{F2}$	$I_F=1A$	-	0.295	0.36	V
	$V_{F3}$	$I_F=3A$	-	0.355	0.39	V
Reverse Current	$I_R$	$V_R=30V$	-	0.35	3	mA
Inter-Terminal Capacity	$C_t$	$V_R=1V, f=1MHz$	-	385	-	pF
Reverse Recovery Time <sup>*2</sup>	$t_{rr}$	$I_F=I_R=10mA, irr=1mA$	-	90	-	ns

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

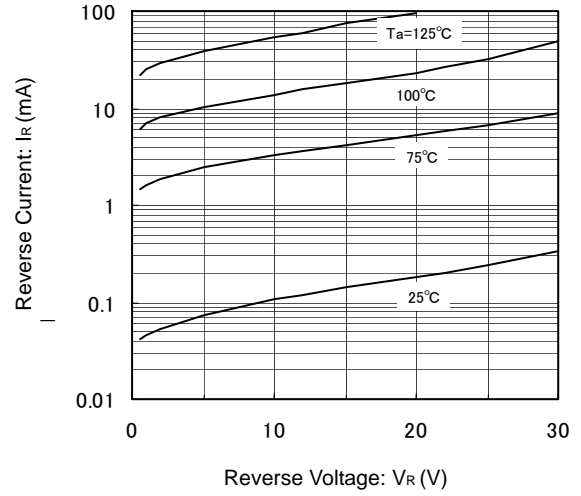


## TYPICAL PERFORMANCE CHARACTERISTICS

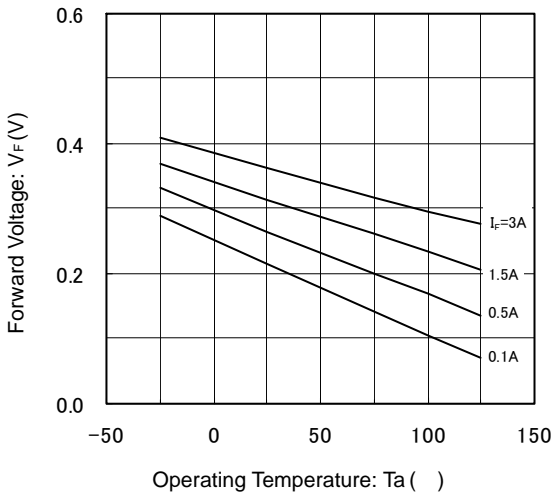
(1) Forward Current vs. Forward Voltage



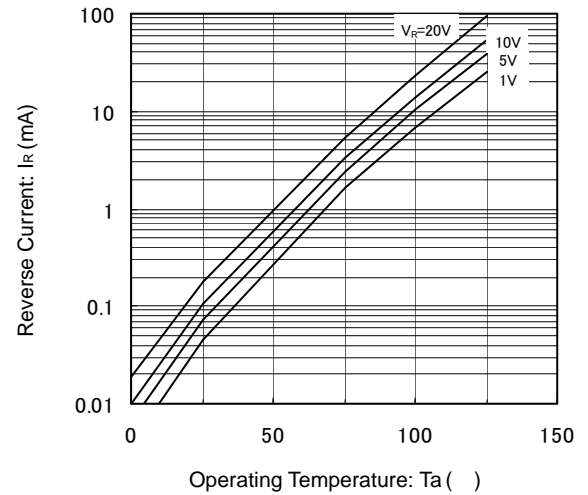
(2) Reverse Current vs. Reverse Voltage



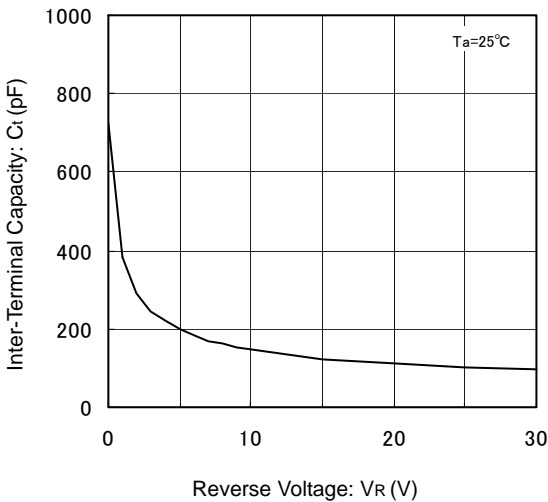
(3) Forward Voltage vs. Operating Temperature



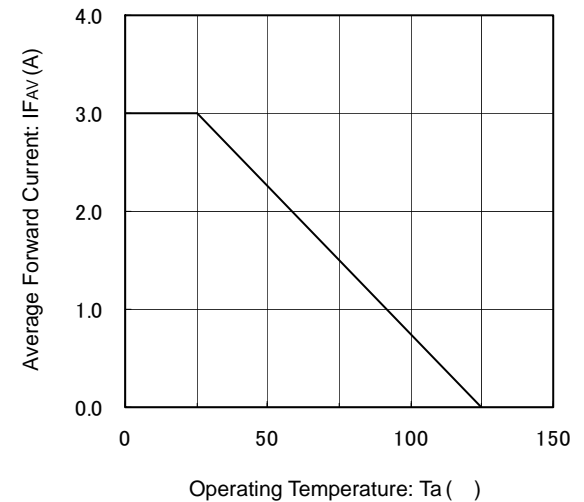
(4) Reverse Current vs. Operating Temperature



(5) Inter-Terminal Capacity vs. Reverse Voltage



(6) Average Forward Current vs. Operating Temperature



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