

# XBS306S17

TOREX

ETR1616-002

Schottky Barrier Diode, 3A, 60V Type

## FEATURES

Forward Voltage	: $V_F=0.59V$ (TYP.)
Forward Current	: $I_{F(AV)}=3A$
Repetitive Peak Reverse Voltage	: $V_{RM}=60V$

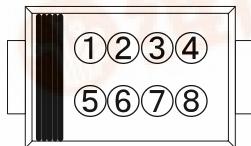
## ABSOLUTE MAXIMUM RATINGS

Ta=25

PARAMETER	SYMBOL	RATINGS	UNIT
Repetitive Peak Reverse Voltage	$V_{RM}$	60	V
Reverse Voltage (DC)	$V_R$	60	V
Forward Current (Average)	$I_{F(AV)}$	3	A
Non Continuous Forward Surge Current <sup>1</sup>	$I_{FSM}$	50	A
Junction Temperature	$T_j$	125	
Storage Temperature Range	$T_{stg}$	-55 ~ +150	

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

## MARKING RULE



: 306S17(Product Number)  
: Assembly Lot Number

## PRODUCT NAME

PRODUCT NAME	DEVICE ORIENTATION
XBS306S17	R : Embossed tape, standard feed

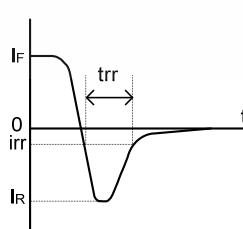
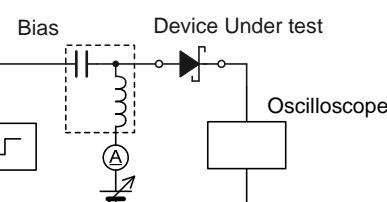
\* Please put the device orientation type "R".

## ELECTRICAL CHARACTERISTICS

Ta=25

PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNIT
			MIN.	TYP.	MAX.	
Forward Voltage	$V_{F1}$	$I_F=200 \mu A$	-	0.145	-	V
	$V_{F2}$	$I_F=3A$	-	0.59	0.66	V
Reverse Current	$I_{R1}$	$V_R=30V$	-	3	-	$\mu A$
	$I_{R2}$	$V_R=60V$	-	9	300	$\mu A$
Inter-Terminal Capacity	$C_t$	$V_R=1V, f=1MHz$	-	195	-	pF
Reverse Recovery Time <sup>2</sup>	$trr$	$I_F=I_R=10mA, irr=1mA$	-	55	-	ns

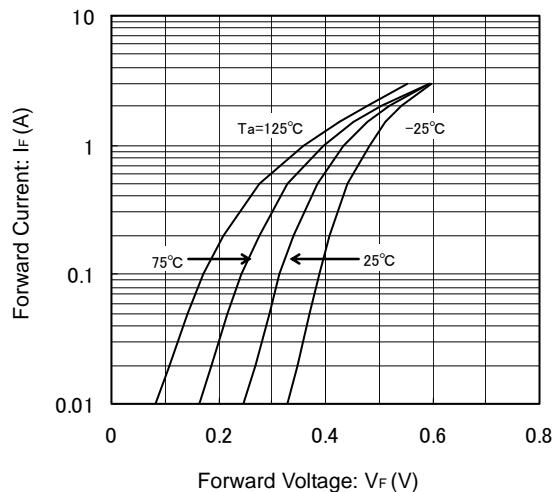
\*2 : trr measurement circuit



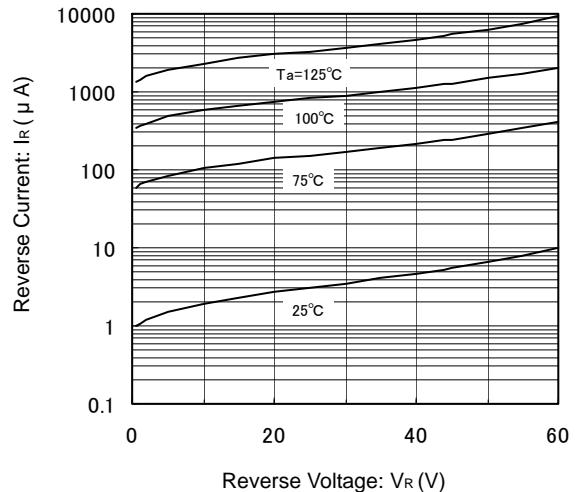
# XBS306S17

## TYPICAL PERFORMANCE CHARACTERISTICS

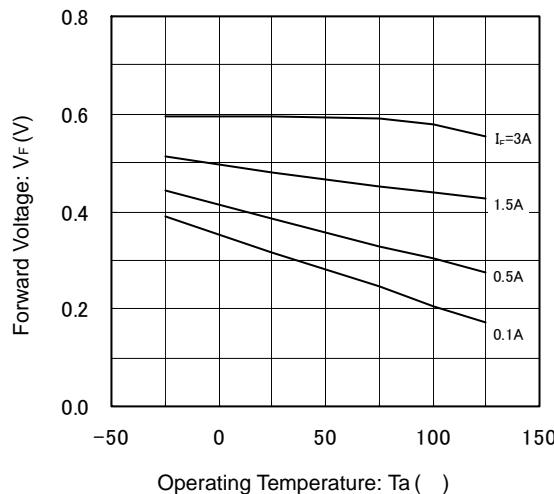
(1) Forward Current vs. Forward Voltage



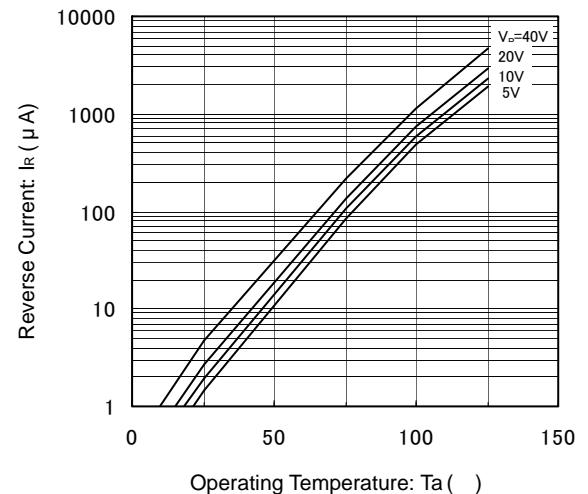
(2) Reverse Current vs. Reverse Voltage



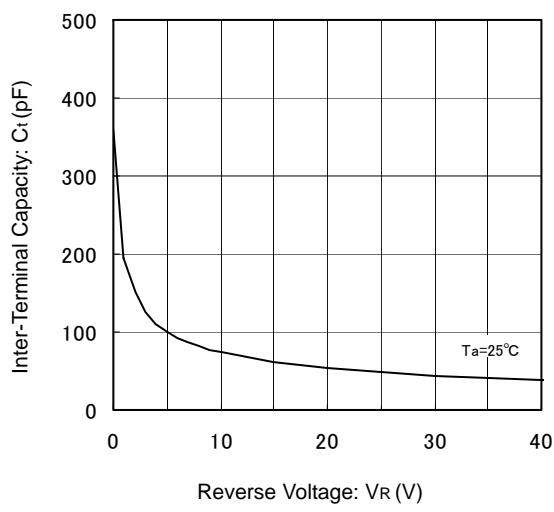
(3) Forward Voltage vs. Operating Temperature



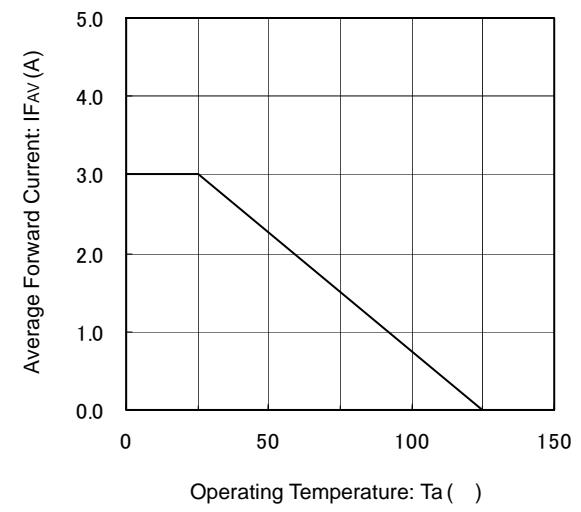
(4) Reverse Current vs. Operating Temperature



(5) Inter-Terminal Capacity vs. Reverse Voltage



(6) Average Forward Current vs. Operating Temperature



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