

# XBS013S16

## Schottky Barrier Diode, 100mA, 30V Type

### FEATURES

- Forward Voltage :  $V_F=0.71V$  (TYP.)
- Forward Current :  $I_{F(AV)}=100mA$
- Repetitive Peak Reverse Voltage :  $V_{RM}=30V$

### APPLICATIONS

Low Current Rectification

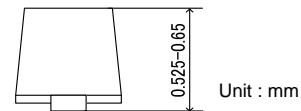
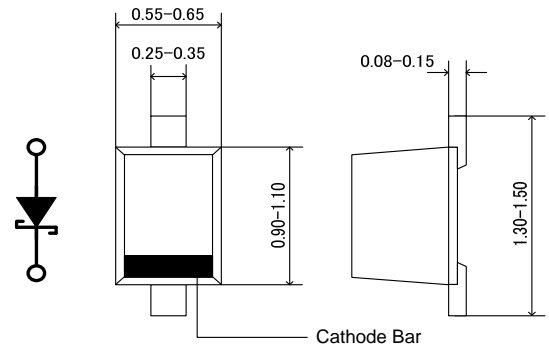
### ABSOLUTE MAXIMUM RATINGS

$T_a=25$

PARAMETER	SYMBOL	RATINGS	UNIT
Repetitive Peak Voltage	$V_{RM}$	30	V
Reverse Voltage(DC)	$V_R$	30	V
Forward Current(Average)	$I_{F(AV)}$	100	mA
Non Continuous Forward Surge Current <sup>*1</sup>	$I_{FSM}$	0.6	A
Junction Temperature	$T_J$	125	
Storage Temperature Range	$T_{stg}$	-55 ~ +150	

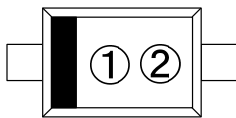
\*1 : Non continuous high amplitude 60Hz half-sine wave.

### PACKAGING INFORMATION



SOD-723

### MARKING RULE



: 0 (Product Number)  
: Assembly Lot Number

### PRODUCT NAME

PRODUCT NAME	DEVICE ORIENTATION
XBS013S16	R : Embossed tape, standard feed

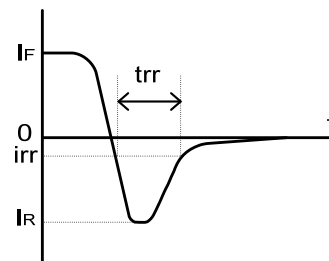
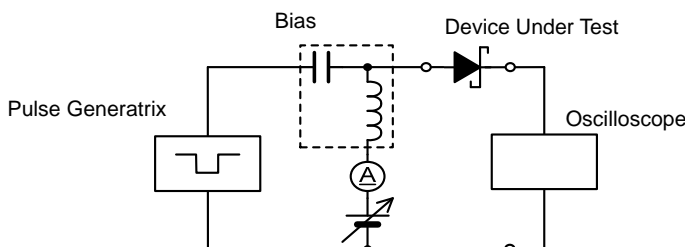
\* Please put the device orientation type "R".

### ELECTRICAL CHARACTERISTICS

$T_a=25$

PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNIT
			MIN.	TYP.	MAX.	
Forward Voltage	$V_{F1}$	$I_F=1mA$	-	0.31	-	V
	$V_{F2}$	$I_F=100mA$	-	0.71	1	V
Reverse Current	$I_R$	$V_R=25V$	-	-	2	$\mu A$
Inter-Terminal Capacity	$C_t$	$V_R=0V, f=1MHz$	-	6	-	pF
Reverse Recovery Time <sup>*2</sup>	$t_{rr}$	$I_F=I_R=10mA, irr=1mA$	-	2	-	ns

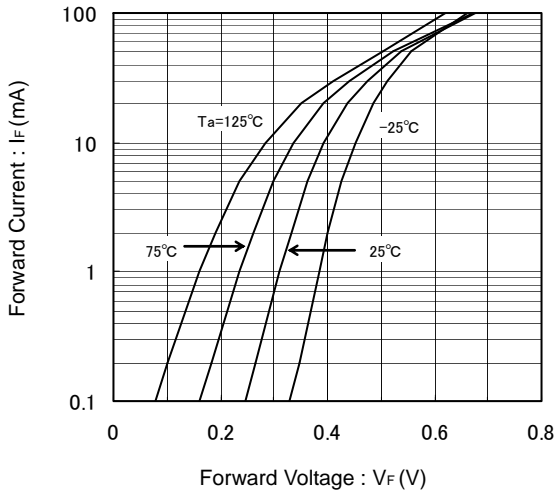
\*2 :  $t_{rr}$  measurement circuit



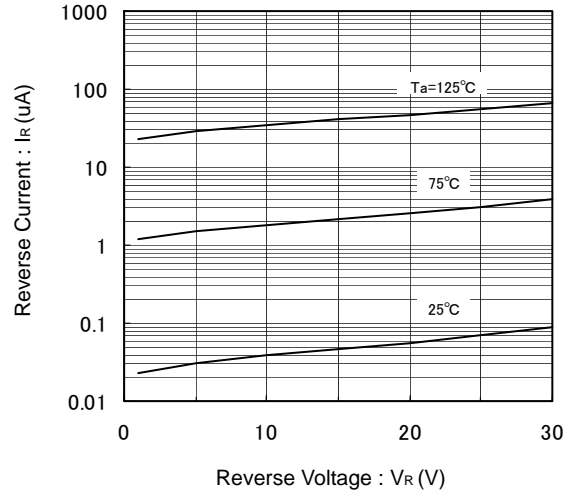
# XBS013S16

## TYPICAL PERFORMANCE CHARACTERISTICS

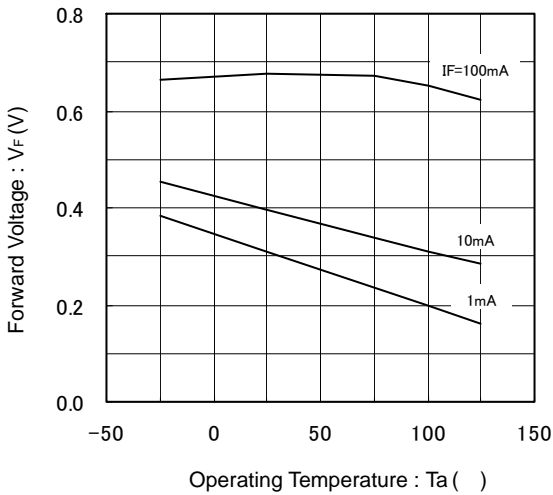
(1) Forward Current vs. Forward Voltage



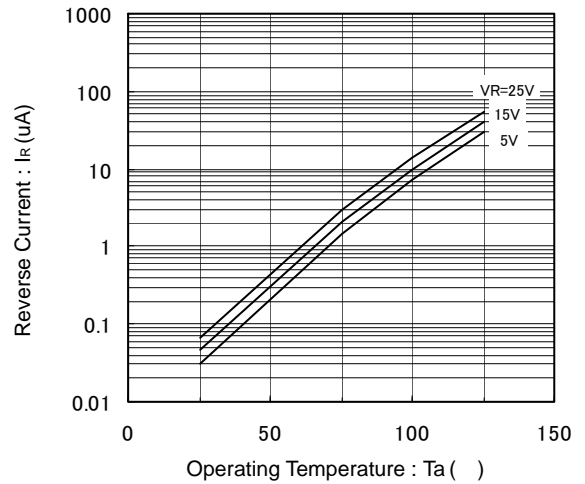
(2) Reverse Current vs. Reverse Voltage



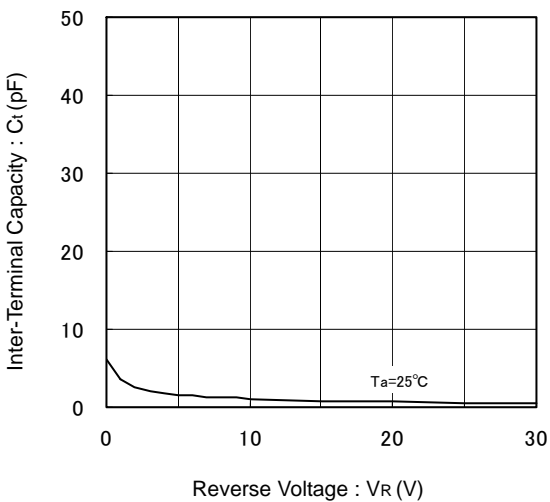
(3) Forward Voltage vs. Operating Temperature



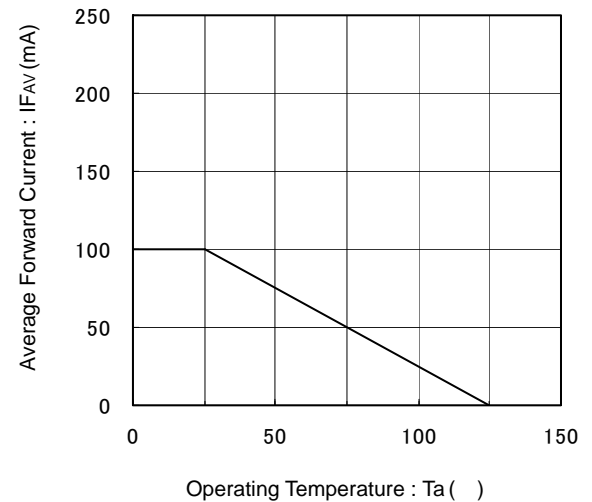
(4) Reverse Current vs. Operating Temperature



(5) Inter-Terminal Capacity vs. Reverse Voltage



(6) Average Forward Current vs. Operating Temperature



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