

XBS104S13

ETR1608-002

Schottky Barrier Diode, 1A, 40V Type

FEATURES

- Forward Voltage : $V_F=0.49V$ (TYP.)
- Forward Current : $I_{F(AV)}=1A$
- Repetitive Peak Reverse Voltage : $V_{RM}=40V$

APPLICATIONS

- Rectification
- Protection against reverse connection of battery

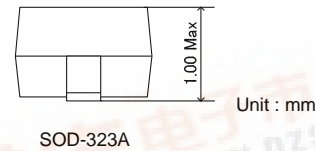
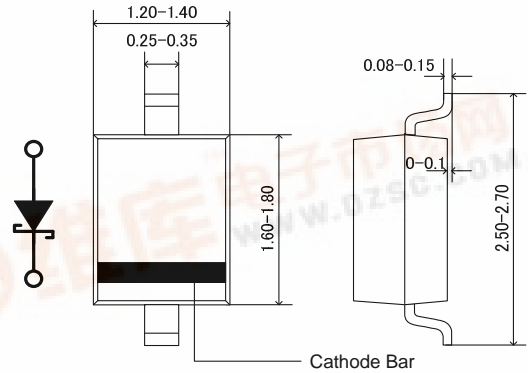
ABSOLUTE MAXIMUM RATINGS

$T_a=25$

PARAMETER	SYMBOL	RATINGS	UNIT
Repetitive Peak Reverse Voltage	V_{RM}	40	V
Reverse Voltage (DC)	V_R	40	V
Forward Current (Average)	$I_{F(AV)}$	1	A
Non Continuous Forward Surge Current *1	I_{FSM}	10	A
Junction Temperature	T_j	125	
Storage Temperature Range	T_{stg}	-55 ~ +150	

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

PACKAGING INFORMATION



MARKING RULE



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

PRODUCT NAME

PRODUCT NAME	DEVICE ORIENTATION
XBS104S13	R : Embossed tape, standard feed

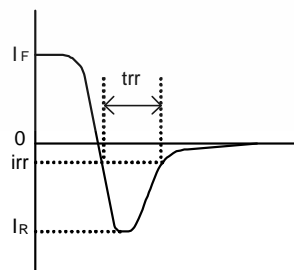
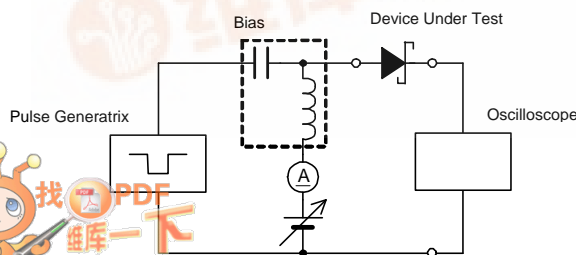
* Please put the device orientation type "R".

ELECTRICAL CHARACTERISTICS

$T_a=25$

PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNIT
			MIN.	TYP.	MAX.	
Forward Voltage	V_{F1}	$I_F=100mA$	-	0.34	-	V
	V_{F2}	$I_F=1A$	-	0.49	0.54	V
Reverse Current	I_R	$V_R=40V$	-	4	200	μA
Inter-Terminal Capacity	C_t	$V_R=10V, f=1MHz$	-	35	-	pF
Reverse Recovery Time *2	t_{rr}	$I_F=I_R=10mA, i_{rr}=1mA, R_L=100$	-	25	-	ns

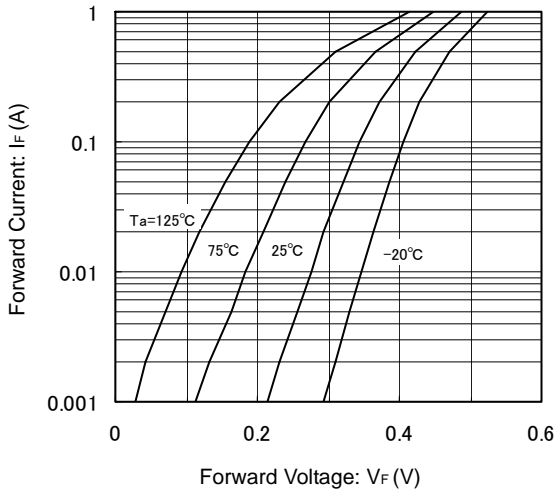
*2 : t_{rr} measurement circuit



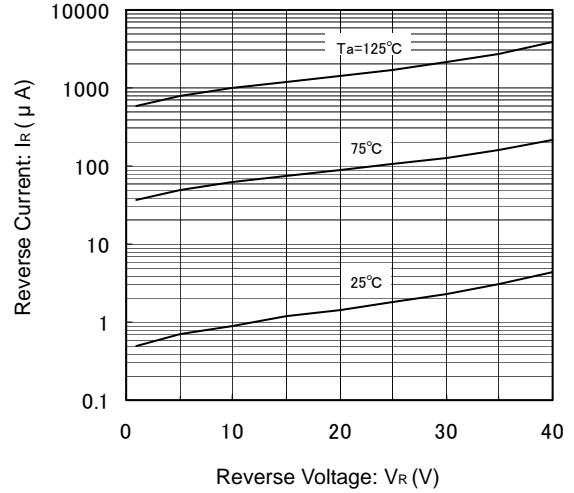
XBS104S13

TYPICAL PERFORMANCE CHARACTERISTICS

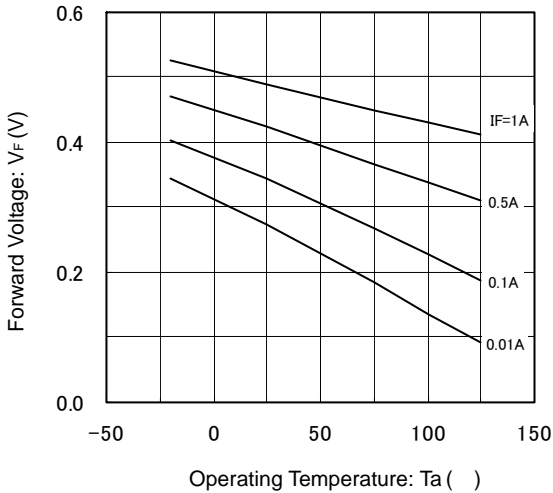
(1) Forward Current vs. Forward Voltage



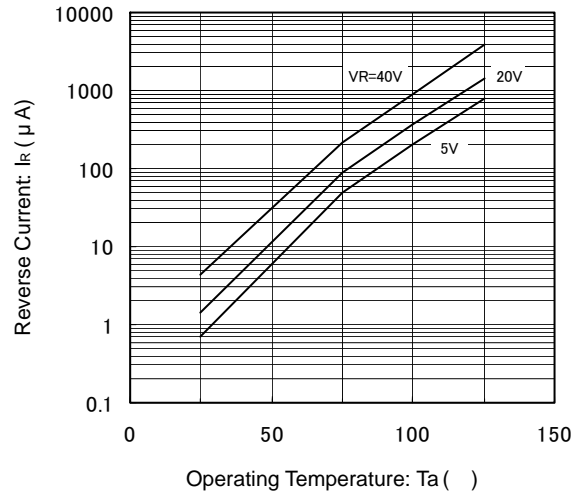
(2) Reverse Current vs. Reverse Voltage



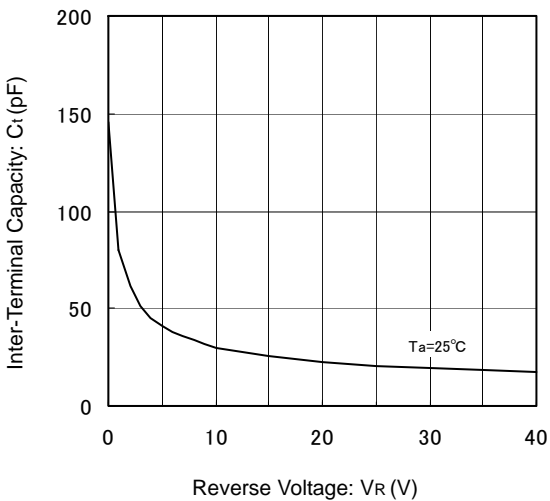
(3) Forward Voltage vs. Operating Temperature



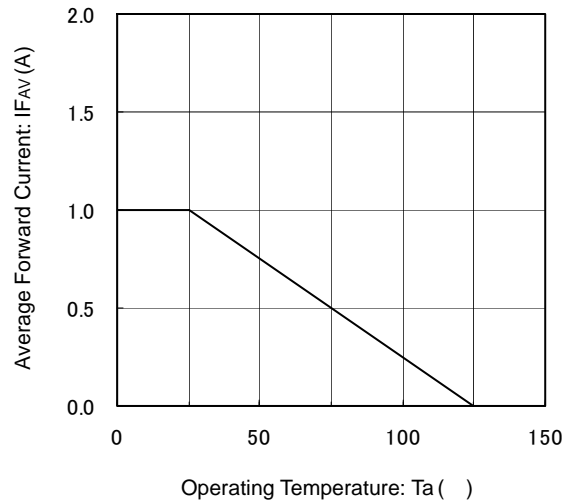
(4) Reverse Current vs. Operating Temperature



(5) Inter-Terminal Capacity vs. Reverse Voltage



(6) Average Forward Current vs. Operating Temperature



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