

XBS104V14

ETR1610-001

Schottky Barrier Diode, 1A, 40V Type

FEATURES

- Forward Voltage : $V_F=0.365V$ (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

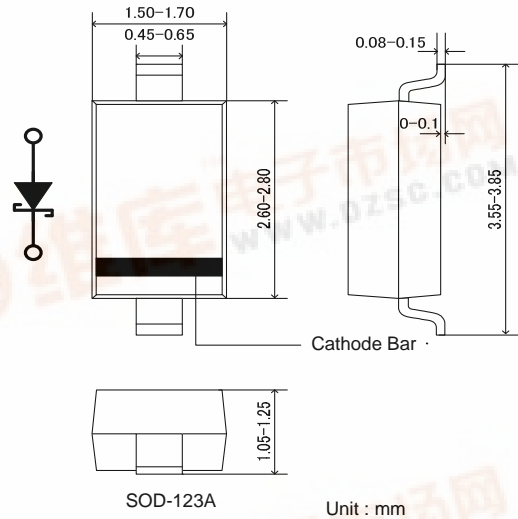
Ta=25

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}	20	A
Junction Temperature	T_j	125	
Storage Temperature Range	T_{stg}	-55 ~ +150	

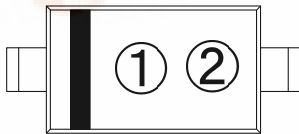
*1 : Non continuous high amplitude 60Hz half-sine wave.

* 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



- : 0 (Product Number)
- : Assembly Lot Number

PRODUCT NAME

PRODUCT NAME	DEVICE ORIENTATION
XBS104V14	R : Embossed tape, standard feed

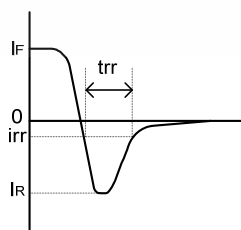
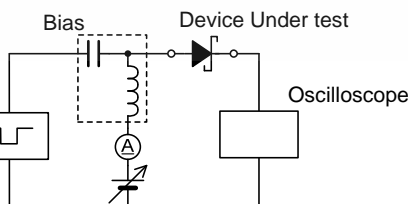
* Please put the device orientation type "R".

ELECTRICAL CHARACTERISTICS

Ta=25

PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNIT
			MIN.	TYP.	MAX.	
Forward Voltage	V_{F1}	$I_F=100mA$	-	0.23	0.315	V
	V_{F2}	$I_F=500mA$	-	0.30	0.385	V
	V_{F3}	$I_F=1A$	-	0.365	0.41	V
Reverse Current	I_R	$V_R=40V$	-	0.25	2	mA
Inter-Terminal Capacity	C_t	$V_R=1V, f=1MHz$	-	150	-	pF
Reverse Recovery Time*2	t_{rr}	$I_F=I_R=10mA, i_{rr}=1mA$	-	41	-	ns

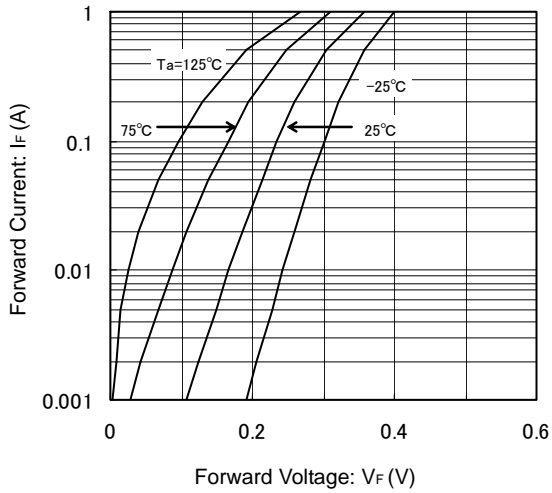
*2 : t_{rr} measurement circuit



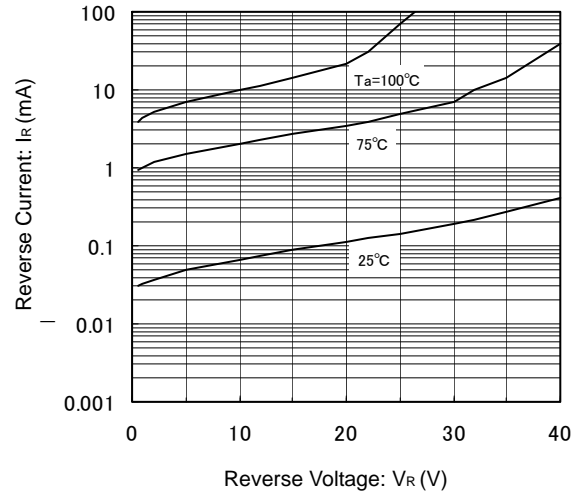
XBS104V14

TYPICAL PERFORMANCE CHARACTERISTICS

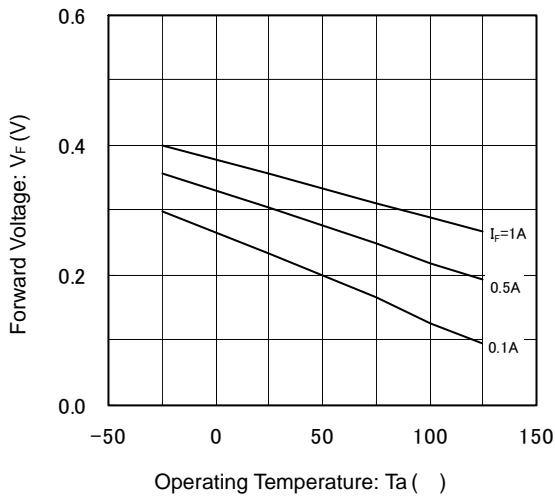
(1) Forward Current vs. Forward Voltage



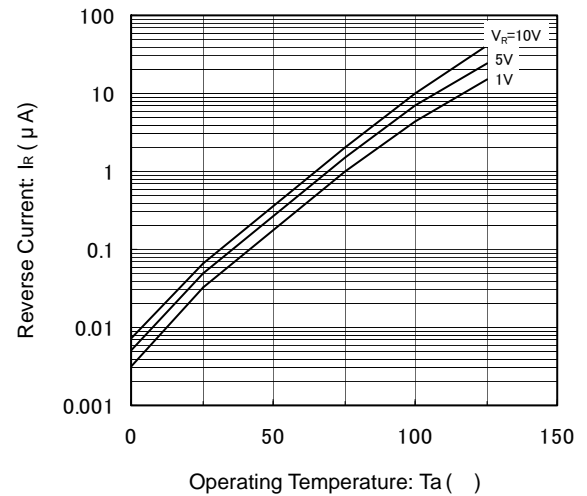
(2) Reverse Current vs. Reverse Voltage



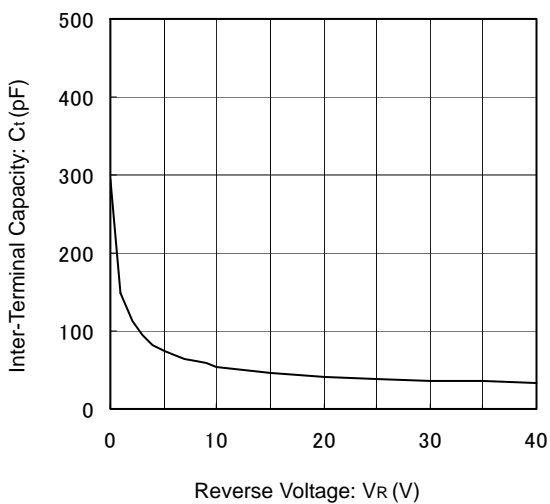
(3) Forward Voltage vs. Operating Temperature



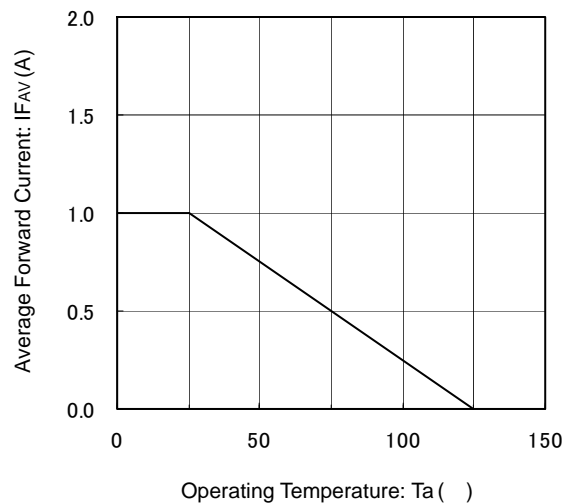
(4) Reverse Current vs. Operating Temperature



(5) Inter-Terminal Capacity vs. Reverse Voltage



(6) Average Forward Current vs. Operating Temperature



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