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[Torex Semiconductor Ltd](#)  
[XBS104S14R-G](#)

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# XBS104S14R-G

ETR1609-003

Schottky Barrier Diode, 1A, 40V, SOD-123A Package

## 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

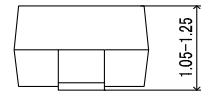
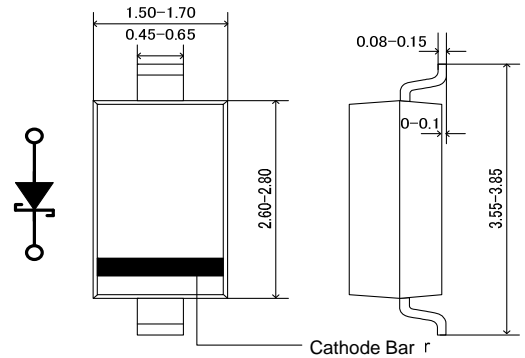
## ABSOLUTE MAXIMUM RATINGS

$T_a=25^\circ C$

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	$^\circ C$
Storage Temperature Range	$T_{stg}$	-55~+150	$^\circ C$

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

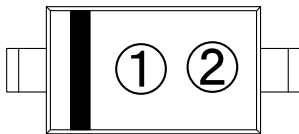
## PACKAGING INFORMATION



SOD-123A

Unit : mm

## MARKING RULE



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

## PRODUCT NAME

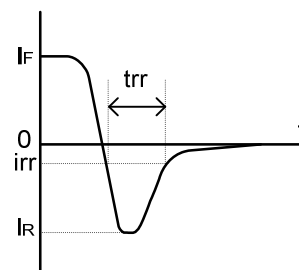
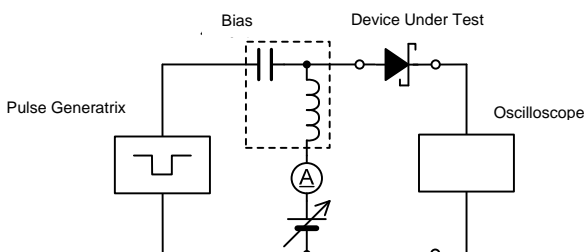
PRODUCT NAME	DESCRIPTION
XBS104S14R	SOD-123A
XBS104S14R-G	SOD-123A (Halogen & Antimony free)

## ELECTRICAL CHARACTERISTICS

$T_a=25^\circ C$

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	$\mu A$
Inter-Terminal Capacity	$C_t$	$V_R=10V$ , $f=1MHz$	-	35	-	pF
Reverse Recovery Time *2	$t_{rr}$	$I_F=I_R=10mA$ , $i_{rr}=1mA$ , $R_L=100\Omega$	-	25	-	ns

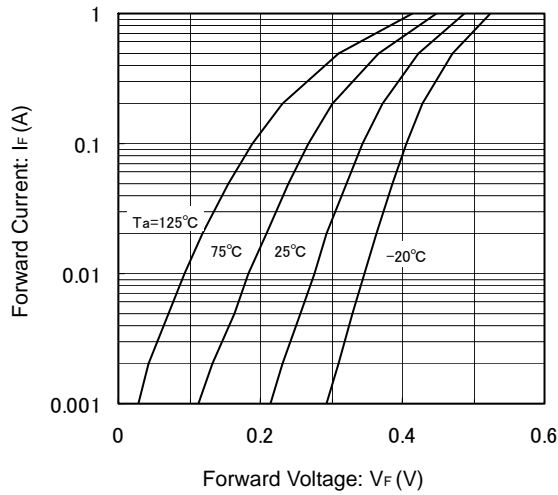
\*2 :  $t_{rr}$  measurement circuit



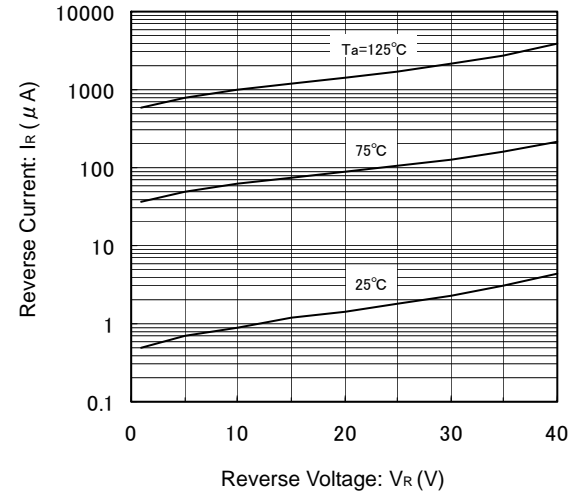
# XBS104S14

## TYPICAL PERFORMANCE CHARACTERISTICS

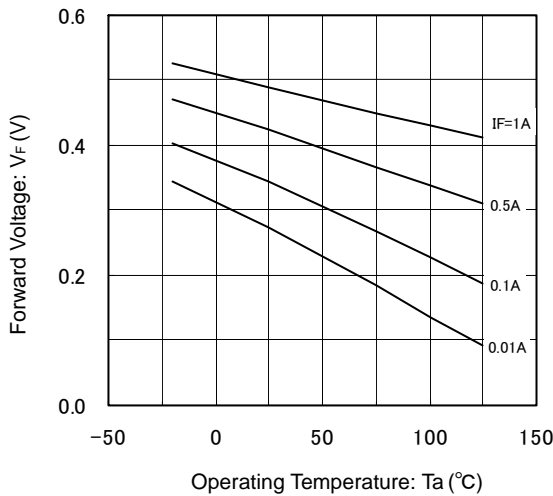
(1) Forward Current vs. Forward Voltage



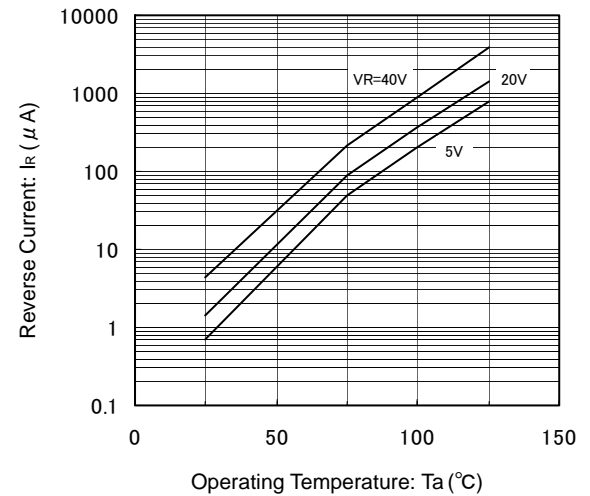
(2) Reverse Current vs. Reverse Voltage



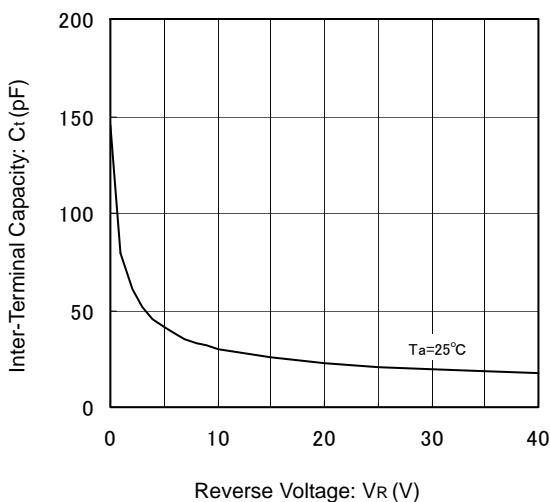
(3) Forward Voltage vs. Operating Temperature



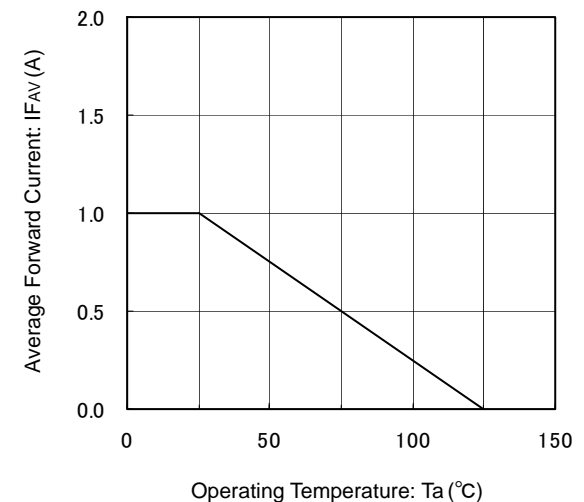
(4) Reverse Current vs. Operating Temperature



(5) Inter-Terminal Capacity vs. Reverse Voltage



(6) Average Forward Current vs. Operating Temperature



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