

## Switching Diode

## ■ FEATURES

Two elements

Small Package

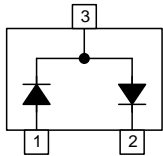
Environmentally Friendly : EU RoHS Compliant, Pb Free

## ■ PRODUCT NAME

PRODUCT NAME	PACKAGE	ORDER UNIT
XBW21P0204-G *	SOT-323	3,000/Reel

\* The "-G" suffix denotes Halogen and Antimony free as well as being fully EU RoHS compliant.

## ■ PIN CONFIGURATION



## ■ ABSOLUTE MAXIMUM RATINGS

Ta=25°C

PARAMETER	SYMBOL	RATINGS	UNIT
Reverse Voltage (DC)	$V_R$	75	V
Peak Reverse Voltage	$V_{RM}$	100	V
Forward Current (Average)	$I_{F(AV)}$	150	mA
Peak Forward Surge Current ( $t=1 \mu s$ )	$I_{FSM}$	4	A
Power Dissipation	$P_d$	200	mW
Junction Temperature	$T_j$	150	°C
Storage Temperature	$T_{stg}$	-55 to +150	°C

## ■ ELECTRICAL CHARACTERISTICS

Ta=25°C

PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNITS
			MIN.	TYP.	MAX.	
Forward Voltage	$V_{F1}$	$I_F=10mA$	-	-	0.855	V
	$V_{F2}$	$I_F=50mA$	-	-	1.00	V
	$V_{F3}$	$I_F=150mA$	-	-	1.25	V
Reverse Current	$I_R$	$V_R=25V$	-	-	0.03	$\mu A$
Terminal Capacitance	$C_t$	$V_R=0V, f=1MHz$	-	-	1.5	pF
Reverse Recovery Time	$t_{rr}$	$I_F=I_R=10mA, I_{irr}=1mA, R_L=100 \Omega$	-	4	-	ns

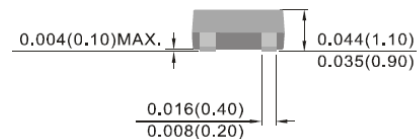
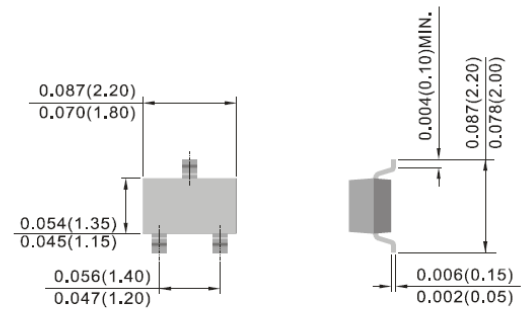
## ■ APPLICATIONS

- High-speed Switching

## ■ PACKAGING INFORMATION

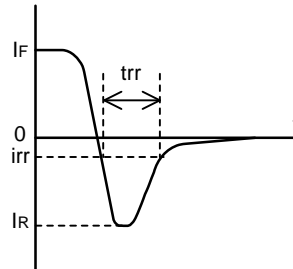
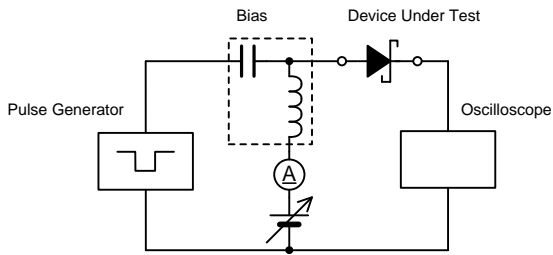
- SOT-323

Unit : inch (mm)



## MEASUREMENT CIRCUITS

### Reverse Recovery Time



## NOTES ON USE

1. Please use this IC within the absolute maximum ratings.

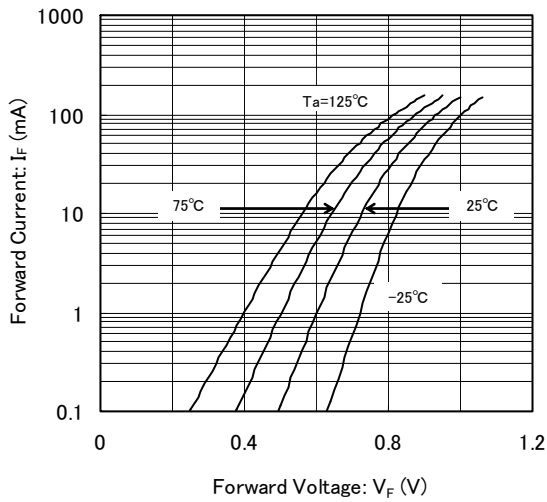
Even within the ratings, in case of high load use continuously such as high temperature, high voltage, high current and thermal stress may cause reliability degradation of the IC.

2. Torex places an importance on improving our products and their reliability.

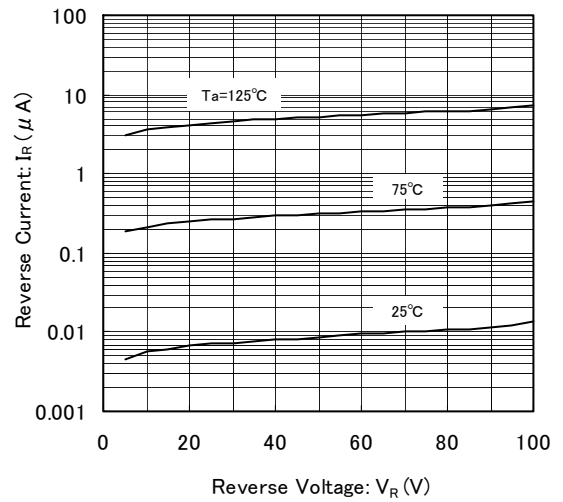
We request that users incorporate fail-safe designs and post-aging protection treatment when using Torex products in their systems.

# ■ TYPICAL PERFORMANCE CHARACTERISTICS

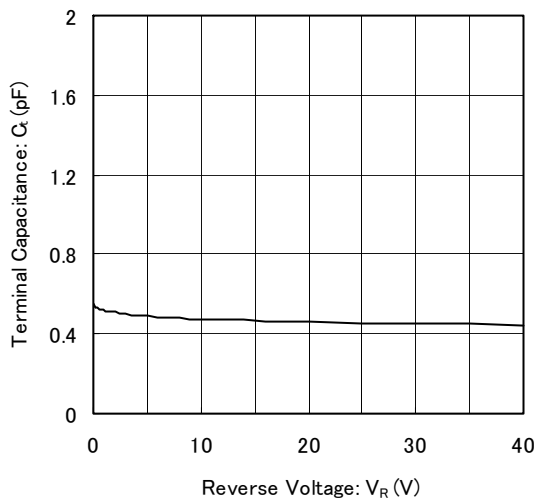
(1) Forward Current vs. Forward Voltage



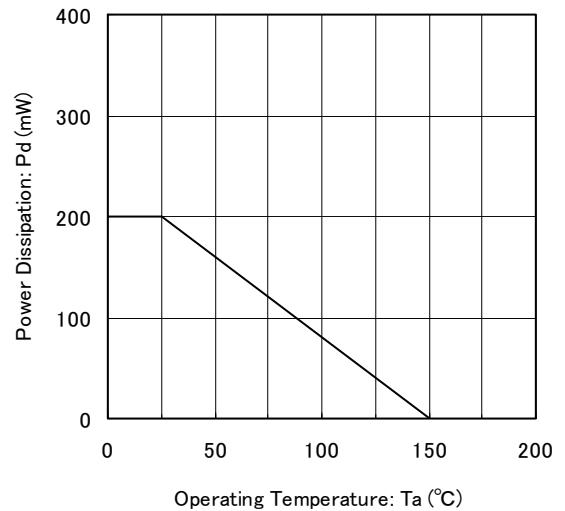
(2) Reverse Current vs. Reverse Voltage



(3) Terminal Capacitance vs. Reverse Voltage



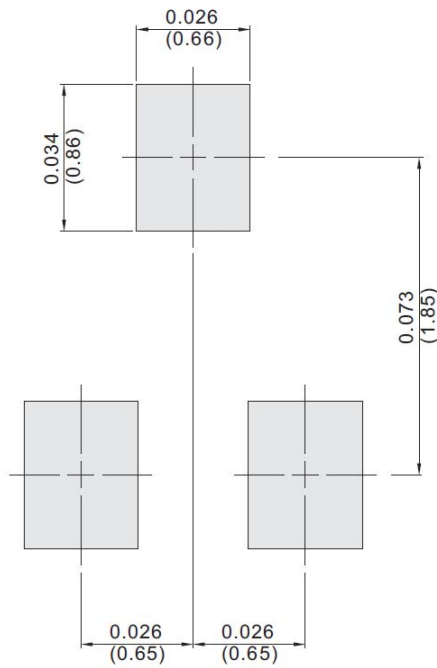
(4) Power Dissipation vs. Operating Temperature



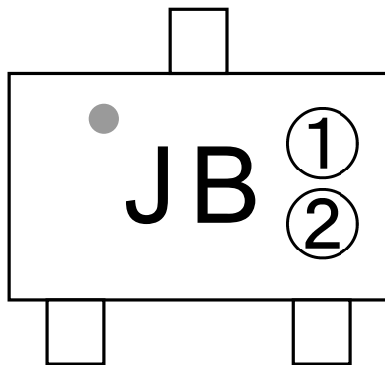
## REFERENCE PATTERN LAYOUT

●SOT-323

Unit : inch (mm)



## MARKING

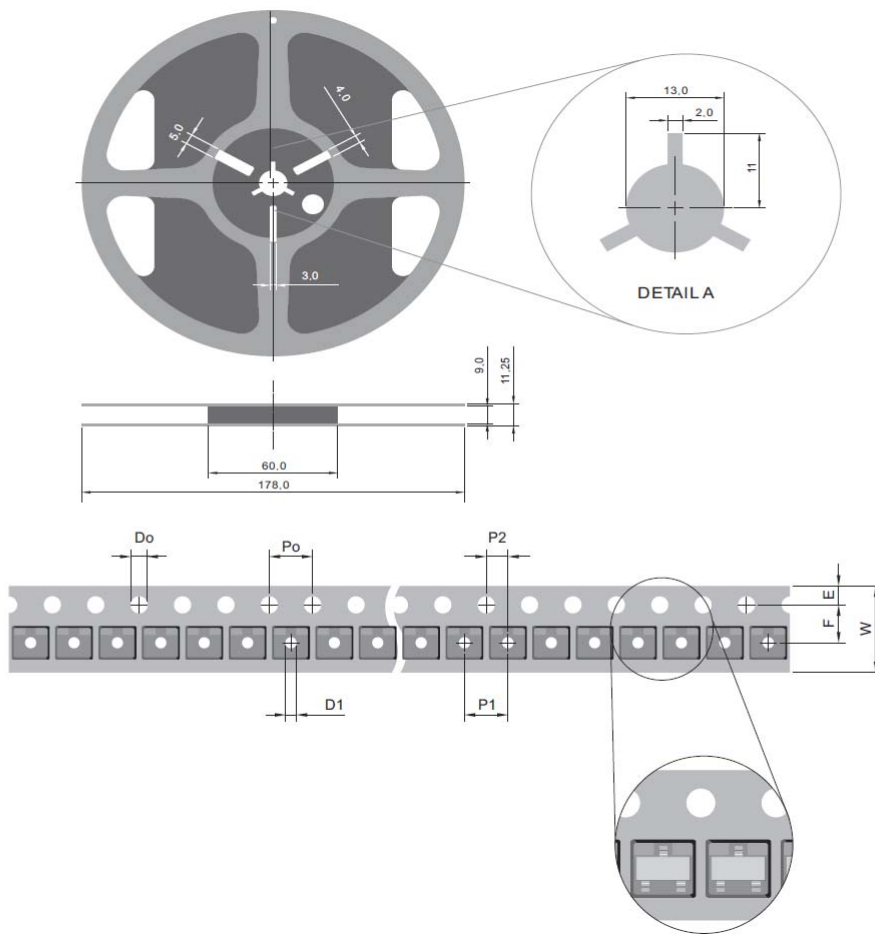


①② : Control Number

# TAPING SPECIFICATIONS

●SOT-323

Unit : mm



SYMBOL	mm
D <sub>0</sub>	1.55 ± 0.05
D <sub>1</sub>	1.00 ± 0.25
E	1.75 ± 0.10
F	3.50 ± 0.05
P <sub>0</sub>	4.00 ± 0.10
P <sub>1</sub>	4.00 ± 0.10
P <sub>2</sub>	2.00 ± 0.05
W	8.00 + 0.3 - 0.15

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