

Switching Diode

■ FEATURES

Two elements

Small Package

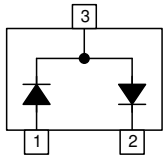
Environmentally Friendly : EU RoHS Compliant, Pb Free

■ 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 | μA |
| Terminal Capacitance | C_t | $V_R=0V, f=1MHz$ | - | - | 1.5 | pF |
| Reverse Recovery Time | t_{rr} | $I_F=I_R=10mA, i_{rr}=1mA, R_L=100 \Omega$ | - | 4 | - | ns |

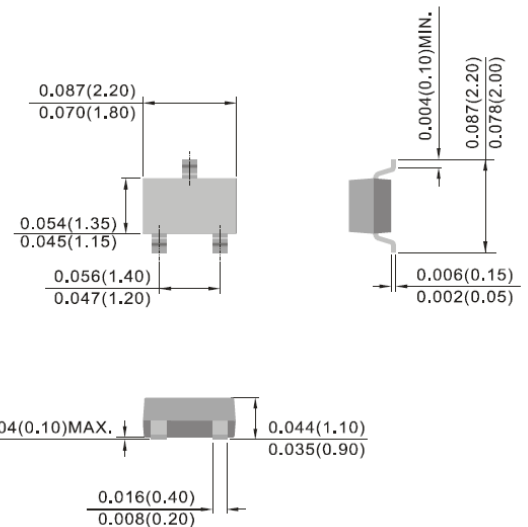
■ APPLICATIONS

- High-speed Switching

■ PACKAGING INFORMATION

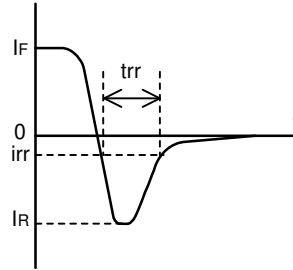
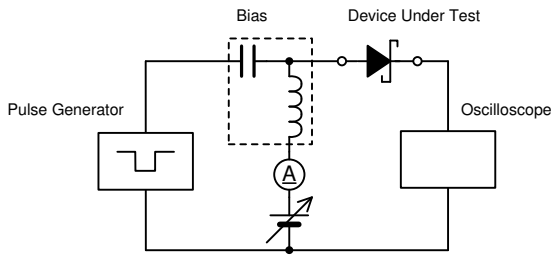
- SOT-323

Unit : inch (mm)



MEASUREMENT CIRCUITS

Reverse Recovery Time



NOTES ON USE

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

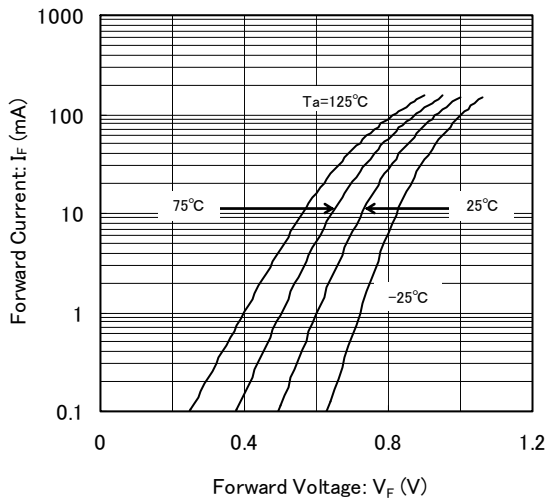
Even within the ratings, in case of high load use continuously such as high temperature, high voltage, high current and thermal stress may cause reliability degradation of the IC.

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

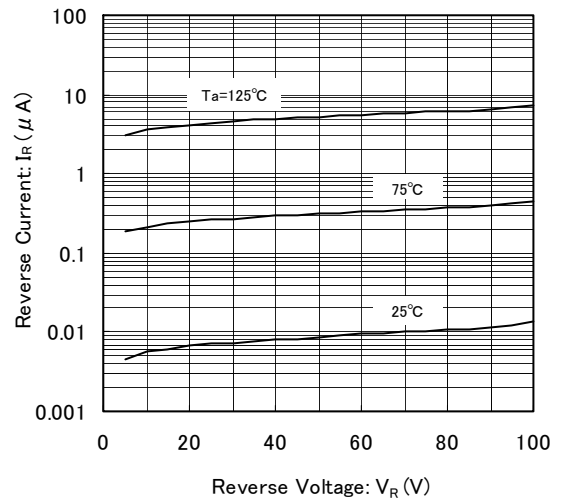
We request that users incorporate fail-safe designs and post-aging protection treatment when using Torex products in their systems.

■ TYPICAL PERFORMANCE CHARACTERISTICS

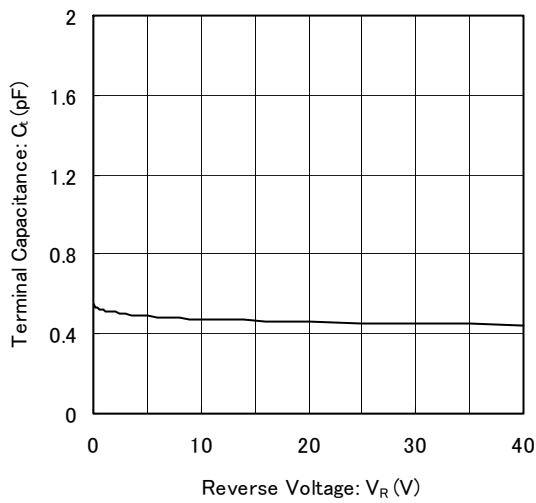
(1) Forward Current vs. Forward Voltage



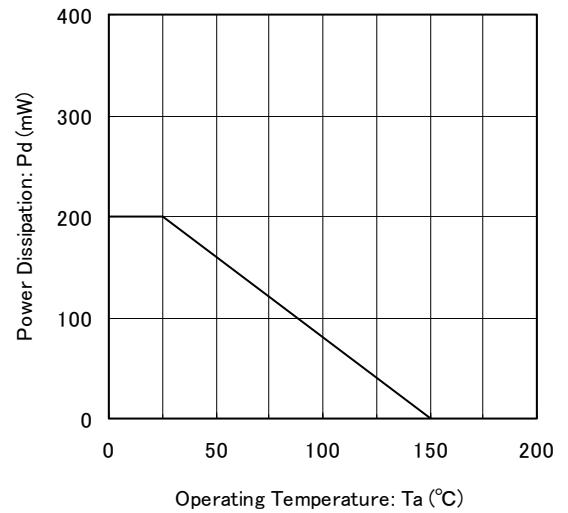
(2) Reverse Current vs. Reverse Voltage



(3) Terminal Capacitance vs. Reverse Voltage



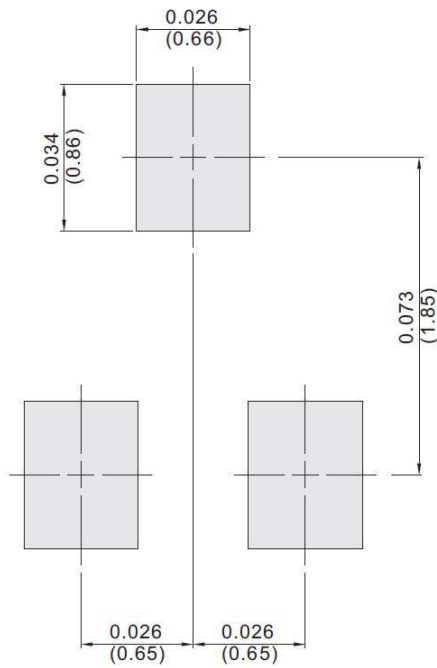
(4) Power Dissipation vs. Operating Temperature



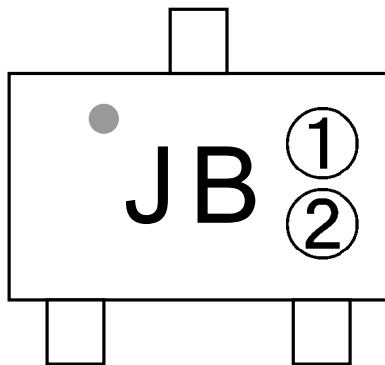
REFERENCE PATTERN LAYOUT

●SOT-323

Unit : inch (mm)



MARKING

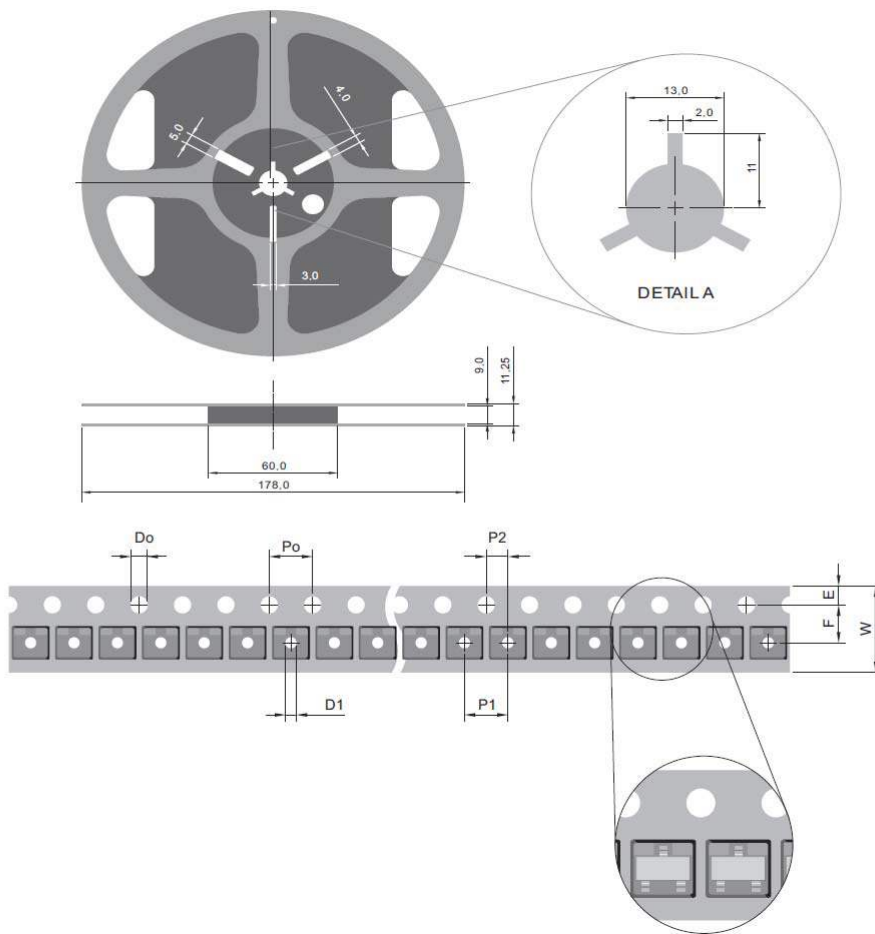


①② : Control Number

TAPING SPECIFICATIONS

●SOT-323

Unit : mm



| SYMBOL | mm |
|--------|--|
| D_0 | 1.55 ± 0.05 |
| D_1 | 1.00 ± 0.25 |
| E | 1.75 ± 0.10 |
| F | 3.50 ± 0.05 |
| P_0 | 4.00 ± 0.10 |
| P_1 | 4.00 ± 0.10 |
| P_2 | 2.00 ± 0.05 |
| W | $8.00 \begin{matrix} +0.3 \\ -0.15 \end{matrix}$ |

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