

# XBS104P11R-G

TOIREX

ETR16027-001

Schottky Barrier Diode, 1A, 40V Type

## FEATURES

Low Forward voltage

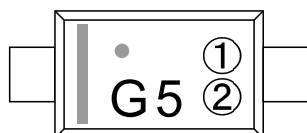
Environmentally Friendly : EU RoHS Compliant, Pb Free

## PRODUCT NAME

| PRODUCT NAME   | PACKAGE  | ORDER UNIT |
|----------------|----------|------------|
| XBS104P11R-G * | SOD-123P | 3,000/Reel |

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

## MARKING



①②: Control Number



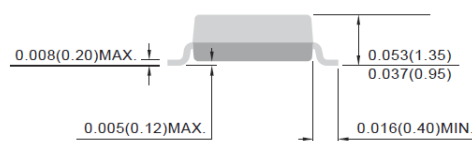
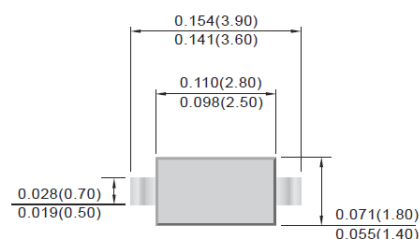
## APPLICATIONS

- Rectification
- Protection against reverse connection of battery

## PACKAGING INFORMATION

● SOD-123P

Unit : inch (mm)



## ABSOLUTE MAXIMUM RATINGS

Ta=25°C

| PARAMETER                                                           | SYMBOL      | RATINGS     | UNITS |
|---------------------------------------------------------------------|-------------|-------------|-------|
| Repetitive Peak Reverse Voltage                                     | $V_{RM}$    | 40          | V     |
| Reverse Voltage (DC)                                                | $V_R$       | 40          | V     |
| Forward Current (Average) at Ta=75°C                                | $I_{F(AV)}$ | 1           | A     |
| Non Continuous Forward Surge Current (8.3 ms single half-sine wave) | $I_{FSM}$   | 30          | A     |
| Junction Temperature                                                | $T_j$       | 125         | °C    |
| Storage Temperature                                                 | $T_{stg}$   | -55 to +150 | °C    |

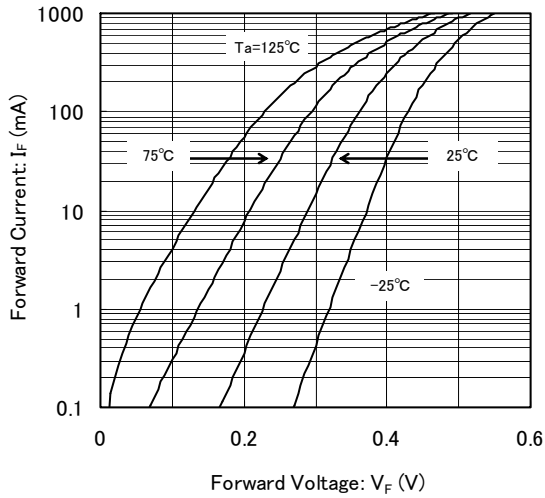
## ELECTRICAL CHARACTERISTICS

Ta=25°C

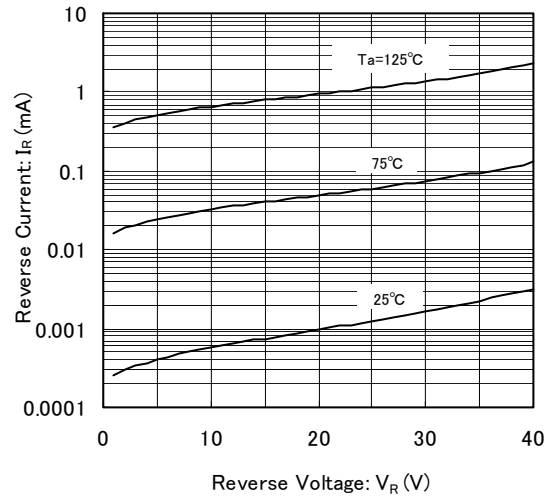
| PARAMETER            | SYMBOL | TEST CONDITIONS  | LIMITS |      |      | UNITS   |
|----------------------|--------|------------------|--------|------|------|---------|
|                      |        |                  | MIN.   | TYP. | MAX. |         |
| Forward Voltage      | $V_F$  | $I_F=1A$         | -      | -    | 0.56 | V       |
| Reverse Current      | $I_R$  | $V_R=40V$        |        |      | 500  | $\mu A$ |
| Terminal Capacitance | $C_t$  | $V_R=0V, f=1MHz$ | -      | -    | 230  | pF      |

## TYPICAL PERFORMANCE CHARACTERISTICS

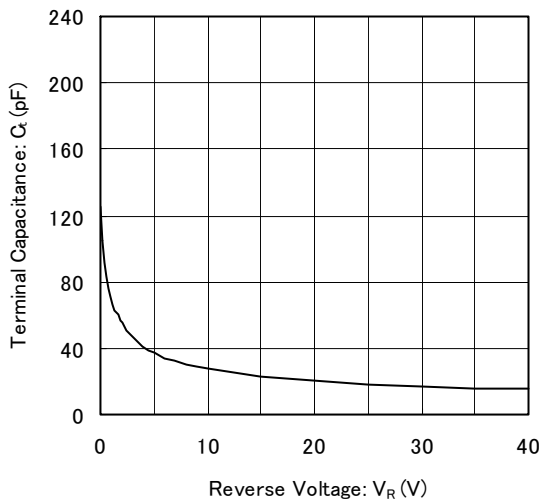
(1) Forward Current vs. Forward Voltage



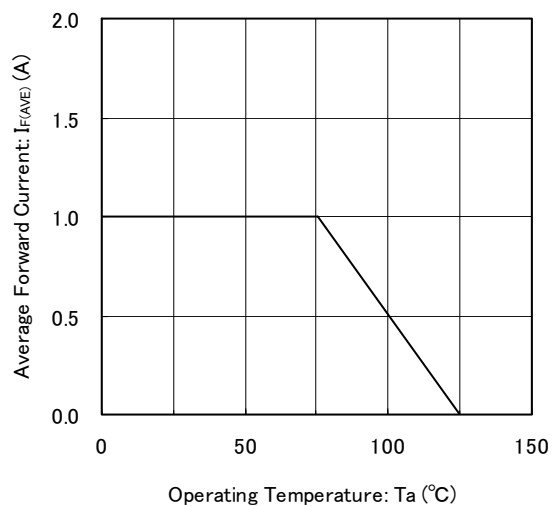
(2) Reverse Current vs. Reverse Voltage



(3) Terminal Capacitance vs. Reverse Voltage



(4) Average Forward Current vs. Operating Temperature



## 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.

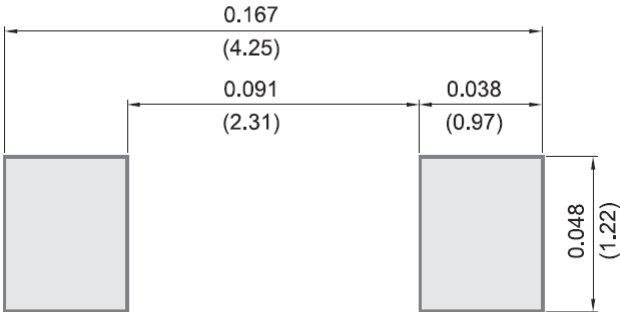
2. Torex places an importance on improving our products and their reliability.

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

■REFERENCE PATTERN LAYOUT

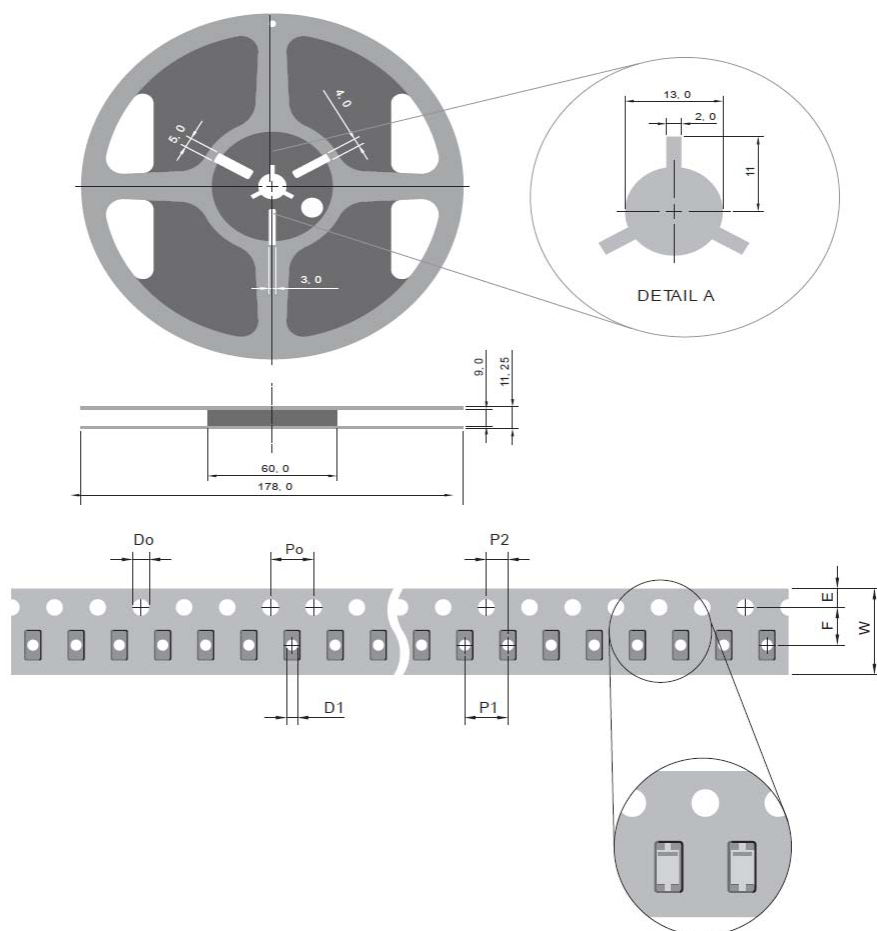
●SOD-123P

Unit : inch (mm)



## TAPING SPECIFICATIONS

●SOD-123P



| SYMBOL         | mm                    |
|----------------|-----------------------|
| D <sub>0</sub> | 1.50 ± 0.10           |
| 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 + 0.15<br>- 0.15 |

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