# XBP1004

ETR29013-001

Low Capacitance TVS Diode Array

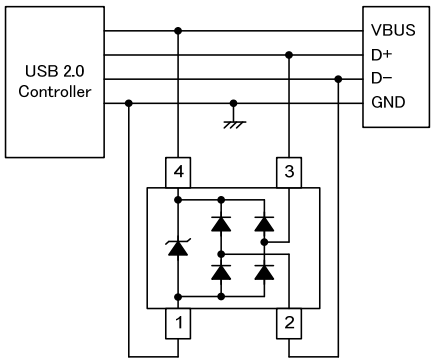
## ■FEATURES

**Terminal Capacitance** : 1.2pF (Line-to-GND)
**ESD Protection** : 8kV Contact (IEC61000-4-2)
**Environmentally Friendly** : EU RoHS Compliant, Pb Free

## ■APPLICATIONS

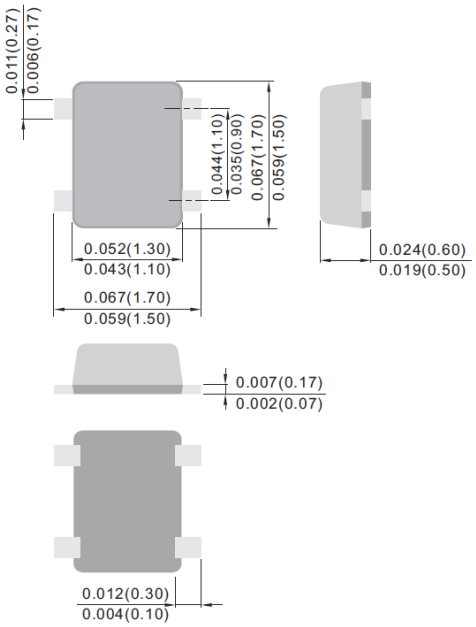
●USB2.0, Firewire
●HDMI Ver.1.3
●DVI

## ■APPLICATION CIRCUIT




## ■ PACKAGING INFORMATION

●SOT-543 Unit: inch (mm)




## ■PRODUCT NAME

| PRODUCT NAME | PACKAGE | ORDER UNIT |
|---|---|---|
| XBP1004-G * | SOT-543 | 4,000 / Reel |

* The “-G” suffix denotes Halogen and Antimony free as well as being fully RoHS compliant.

## ■ABSOLUTE MAXIMUM RATINGS

Ta=25℃

| PARAMETER | SYMBOL | RATINGS | UNITS |
|---|---|---|---|
| Peak Pulse Power (8/20μs Waveform) | Ppk | 350 | W |
| Junction Temperature | Tj | -55 to 125 | ℃ |
| Storage Temperature | Tstg | -55 to 150 | ℃ |

## ■ELECTRICAL CHARACTERISTICS

Ta=25℃

| PARAMETER | SYMBOL | TEST CONDITIONS | LIMITS | | | UNITS |
|---|---|---|---|---|---|---|
| | | | MIN. | TYP. | MAX. | |
| Stand-Off Voltage | $V_{RWM}$ | | - | - | 5 | V |
| Breakdown Voltage | $V_{BR}$ | $I_R$=1mA | 6.2 | - | - | V |
| Leakage Current | $I_R$ | $V_R$=5V | - | - | 1 | μA |
| Clamping Voltage (8/20μs) | $V_C$ | $I_{PP}$=1A | - | - | 9 | V |
| Clamping Voltage (8/20μs) | $V_C$ | $I_{PP}$=5A | - | - | 12 | V |
| Terminal Capacitance | $C_t$ | $V_R$=0V, f=1MHz<br>Between I/O pins and GND | - | 0.9 | 1.2 | pF |
| | | $V_R$=0V, f=1MHz<br>Between I/O pins | - | 0.5 | 0.6 | pF |

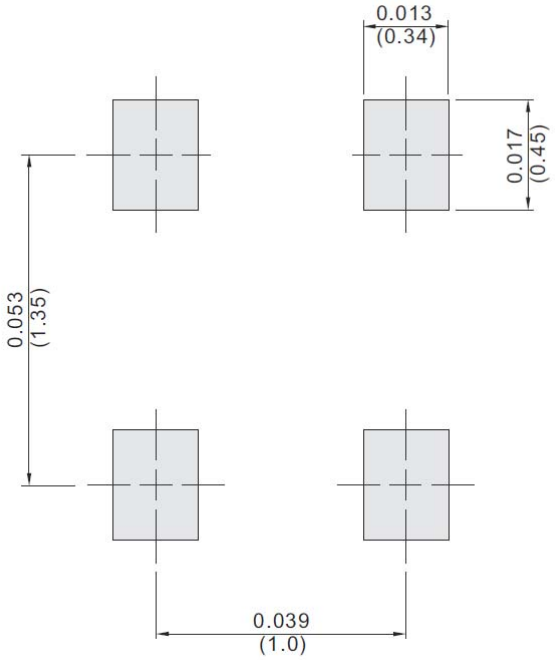
## ■NOTES ON USE

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.

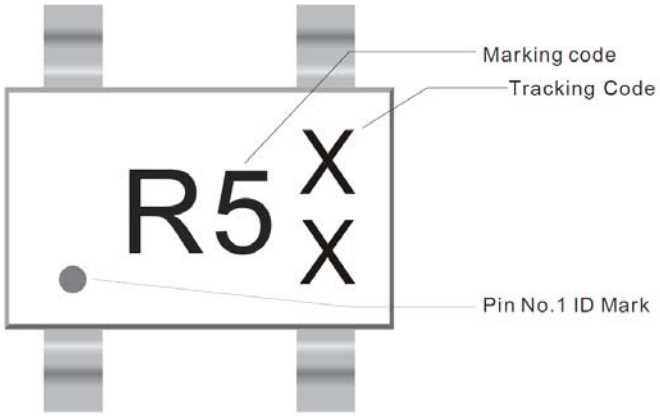
2. Torex places an importance on improving our products and their reliability.
   We request that users incorporate fail-safe designs and post-aging protection treatment when using Torex products in their systems.

## ■REFERENCE PATTERN LAYOUT

●SOT-543

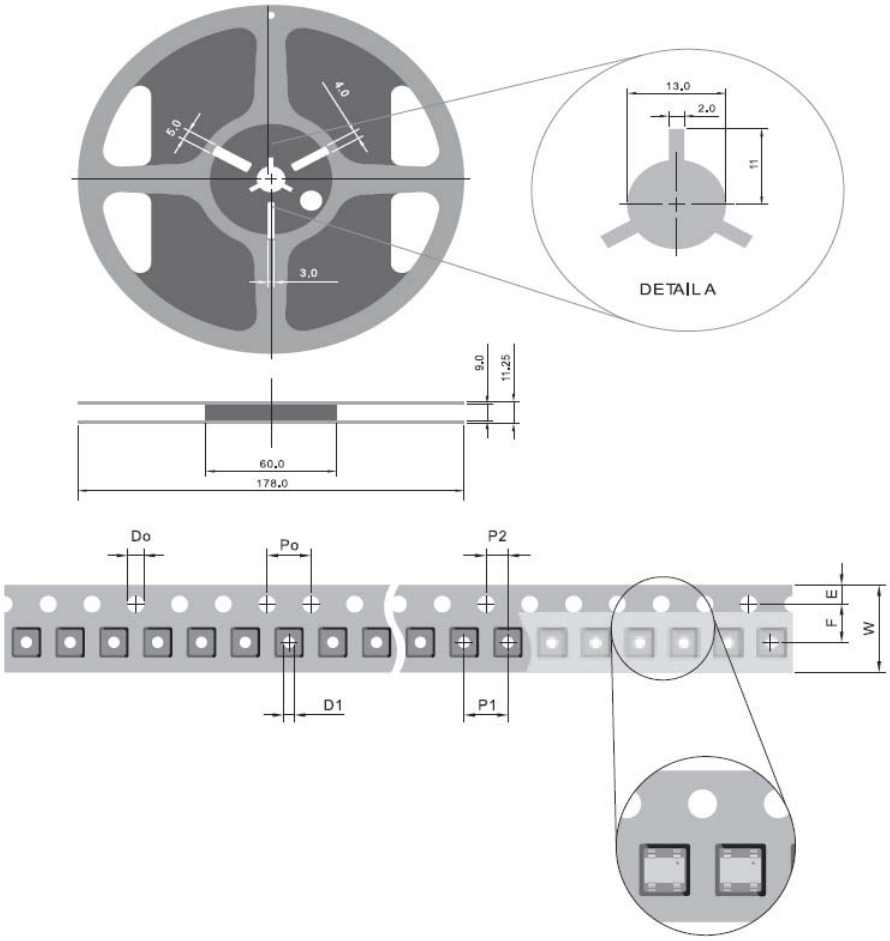



## ■MARKING



## ■TAPING SPECIFICATIONS

●SOT-543




| SYMBOL | | mm |
|---|---|---|
| D0 | | 1.50 ± 0.10 |
| D1 | | 1.00 ± 0.25 |
| | or | 0.50 ± 0.10 |
| E | | 1.75 ± 0.10 |
| F | | 3.50 ± 0.05 |
| P0 | | 4.00 ± 0.10 |
| P1 | | 4.00 ± 0.10 |
| P2 | | 2.00 ± 0.05 |
| W | | 8.00 + 0.30 - 0.15 |

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