## Low Capacitance TVS Diode Array

## FEATURES

Terminal Capacitance ESD Protection Environmentally Friendly
: EU RoHS Compliant, Pb Free

APPLICATIONS<br>- USB2.0, Firewire<br>- HDMI Ver.1.3<br>-DVI

PIN CONFIGURATION


## ■ PACKAGING INFORMATION <br> -SOT-563 Unit: inch (mm)



* The "-G" suffix denotes Halogen and Antimony free as well as being fully RoHS compliant.
$\mathrm{Ta}=25^{\circ} \mathrm{C}$

| PARAMETER | SYMBOL | RATINGS | UNITS |
| :--- | :---: | :---: | :---: |
| Peak Pulse Power (8/20 $\boldsymbol{\mu}$ s Waveform) | Ppk | 75 | W |
| Peak Pulse Current (8/20 $\boldsymbol{\mu}$ s Waveform) | Ipp | 5 | A |
| Junction Temperature | Tj | -55 to 125 | ${ }^{\circ} \mathrm{C}$ |
| Storage Temperature | Tstg | -55 to 150 | ${ }^{\circ} \mathrm{C}$ |

-ELECTRICAL CHARACTERISTICS
$\mathrm{Ta}=25^{\circ} \mathrm{C}$

| PARAMETER | SYMBOL | TEST CONDITIONS | LIMITS |  |  | UNITS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | MIN. | TYP. | MAX. |  |
| Stand-Off Voltage | $V_{\text {RWM }}$ |  | - | - | 5 | V |
| Breakdown Voltage | $V_{\text {BR }}$ | $\mathrm{I}_{\mathrm{R}}=1 \mathrm{~mA}$ | 6.2 | - | - | V |
| Leakage Current | $\mathrm{I}_{\mathrm{R}}$ | $\mathrm{V}_{\mathrm{R}}=5 \mathrm{~V}$ | - | - | 1.0 | $\mu \mathrm{A}$ |
| Clamping Voltage (8/20 s ) | $\mathrm{V}_{\mathrm{c}}$ | $\mathrm{I}_{\mathrm{P} P}=1 \mathrm{~A}$ | - | - | 10 | V |
| Clamping Voltage (8/20 $\boldsymbol{\mu}$ ) | Vc | $\mathrm{I}_{\mathrm{P} P}=2 \mathrm{~A}$ | - | - | 12 | V |
| Clamping Voltage (8/20 s ) | $\mathrm{V}_{\mathrm{c}}$ | $\mathrm{I}_{\mathrm{P}}=5 \mathrm{~A}$ | - | - | 15 | V |
| Terminal Capacitance | $\mathrm{C}_{\mathrm{t}}$ | $\mathrm{V}_{\mathrm{R}}=0 \mathrm{~V}, \mathrm{f}=1 \mathrm{MHz}$ <br> Between I/O pins and GND pin | - | - | 1.2 | pF |
|  |  | $\begin{aligned} & \mathrm{V}_{\mathrm{R}}=0 \mathrm{~V}, \mathrm{f}=1 \mathrm{MHz} \\ & \text { Between } \mathrm{I} / \mathrm{O} \text { pins } \end{aligned}$ | - | - | 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-563

Unit : inch (mm)


■MARKING


## TAPING SPECIFICATIONS

## -SOT-563



| SYMBOL | mm |
| :--- | :--- |
| D0 | $1.50 \pm 0.10$ |
| D1 | $1.00 \pm 0.25$ |
| E | $1.75 \pm 0.10$ |
| F | $3.50 \pm 0.05$ |
| P0 | $4.00 \pm 0.10$ |
| P1 | $4.00 \pm 0.10$ |
| P2 | $2.00 \pm 0.05$ |
| W | 8.00 |
|  |  |

1. The products and product specifications contained herein are subject to change without notice to improve performance characteristics. Consult us, or our representatives before use, to confirm that the information in this datasheet is up to date.
2. We assume no responsibility for any infringement of patents, patent rights, or other rights arising from the use of any information and circuitry in this datasheet.
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(e.g. Atomic energy; aerospace; transport; combustion and associated safety equipment thereof.)
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