## PJSD03LCFN2

## BI-DIRECTIONAL ESD PROTECTION DIODE

This bi-directional TVS has been designed to protect sensitive equipment against ESD and to prevent Latch-Up events in CMOS circuitry operating at 3.3 Vdc and below.This offers an integrated solution to protect a single data line where the board space is a premium.

## SPECIFICATION FEATURES

- 40W Power Dissipation ( $8 / 20 \mu \mathrm{~s}$ Waveform)
- Low Leakage Current, Maximum of $2.5 \mu \mathrm{~A} @ 3.3 \mathrm{Vdc}$
- Very low Clamping voltage
- IEC 61000-4-2 ESD 30kV air, 30kV Contact Compliance
- Lead free in compliance with EU RoHS2.0 (2011/65/EU \& 2015/865/EU directive)
- Green molding compound as per IEC61249 Std. . (Halogen Free)
- Terminals : Solderable per MIL-STD-750, Method 2026
- Case : DFN 2L, Plastic
- Marking : BS


## APPLICATIONS

- Video I/O ports protection
- Set Top Boxes
- Portable Instrumentation



## MAXIMUM RATINGS

| Rating | Symbol | Value | Units |
| :--- | :---: | :---: | :---: |
| Peak Pulse Power (8/20 $\mu$ s Waveform) | PPP | 40 | W |
| Peak Pulse Current (8/20 $\mu$ s Waveform) | I PPM | 6 | A |
| Operating Junction and Storage Temperature Range | TJ,TsTG | -55 to +150 | ${ }^{\circ} \mathrm{C}$ |

ELECTRICAL CHARACTERISTICS $\left(\mathrm{T}_{\mathrm{j}}=25^{\circ} \mathrm{C}\right)$

| Parameter | Symbol | Conditions | Min. | Typ. | Max. | Units |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reverse Stand-Off Voltage | VwRM |  | - | - | 3.3 | V |
| Reverse Breakdown Voltage | VBR | $I_{\text {BR }}=1 \mathrm{~mA}$ | 5.4 | - | 7.0 | V |
| Reverse Leakage Current | IR | V R $=3.3 \mathrm{~V}$ | - | - | 2.5 | $\mu \mathrm{A}$ |
| Clamping Voltage ( $8 / 20 \mu \mathrm{~s}$ ) | Vc | IPP $=6 \mathrm{~A}$ | - | - | 10 | V |
| Off State Junction Capacitance | CJ | 0 Vdc Bias $\mathrm{f}=1 \mathrm{MHz}$ | - | - | 25 | pF |

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TYPICAL CHARACTERISTICS


FIG. 1-TYPICAL PEAK CLAMPING VOLTAGE



FIG. 2-TYPICAL REVERSE CHARACTERISTICS

FIG. 3- Typical Junction Capacitance

## PJSD03LCFN2

MOUNTING PAD LAYOUT

DFN 2L
Unit : inch(mm)


ORDER INFORMATION

- Packing information

T/R - 8K per 7" plastic Reel

## PJSD03LCFN2

## Part No_packing code_Version

PJSD03LCFN2_R1_00001

## For example :

RB500V-40_R2_00001


| Packing Code XX |  |  |  | Version Code |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Packing type | $1{ }^{\text {st }}$ Code | Packing size code | $2^{\text {nd }}$ Code | HF or RoHS | $1^{\text {st }}$ Code | $2^{\text {nd }} 5^{\text {th }}$ Code |
| Tape and Ammunition Box (T/B) | A | N/A | 0 | HF | 0 | serial number |
| Tape and Reel (T/R) | R | 7" | 1 | RoHS | 1 | serial number |
| Bulk Packing (B/P) | B | 13" | 2 |  |  |  |
| Tube Packing (T/P) | T | 26 mm | X |  |  |  |
| Tape and Reel (Right Oriented) (TRR) | S | 52mm | Y |  |  |  |
| Tape and Reel (Left Oriented) (TRL) | L | PANASERT T/B CATHODE UP (PBCU) | U |  |  |  |
| FORMING | F | PANASERT T/B CATHODE DOWN (PBCD) | D |  |  |  |

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