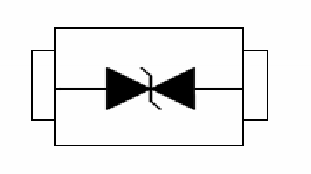
# JEB15D3 Bi-directional TVS Diode for ESD Protection

Rev.2.5

## FEATURES:

- 400 Watts peak pulse power per line ($t_P$=8/20μs)
- Protects one bi-directional I/O line
- Low clamping voltage
- Working voltage:15V
- Low leakage current
- RoHS compliant

SOD-323



Pin Configuration

## MAIN APPLICATIONS

- Cell phone handsets and accessories
- Microprocessor based equipment
- Personal digital assistants (PDA's)
- Notebooks, desktops, and servers
- Portable instrumentation

## PROTECTION SOLUTION TO MEET

- IEC61000-4-2 (ESD) ±30kV (air),±30kV (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- IEC61000-4-5 (Lightning) 10A (8/20μs)

## MECHANICAL CHARACTERISTICS

- SOD-323 package
- Molding compound flammability rating : UL 94V-0
- Weight 5 milligrams (approximate)
- Quantity per reel : 3,000pcs
- Lead finish : lead free
- Marking code Ö15B

## ABSOLUTE MAXIMUM RATINGS ($T_A$=25ºC, RH=45%-75%, unless otherwise noted)

| Parameter | Symbol | Value | Unit |
|---|---|---|---|
| Peak pulse power dissipation on 8/20µs waveform | $P_{PP}$ | 400 | W |
| ESD per IEC 61000-4-2 (Air)<br>ESD per IEC 61000-4-2 (Contact) | $V_{ESD}$ | +/- 30<br>+/- 30 | kV |
| Lead soldering temperature | $T_L$ | 260 (10 sec.) | |
| Operating junction temperature range | $T_J$ | -55 to +125 | |
| Storage temperature range | $T_{STG}$ | -55 to +150 | |

## ELECTRICAL CHARACTERISTICS ($T_A$=25 )

| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|

FIG.3: Pulse derating curve

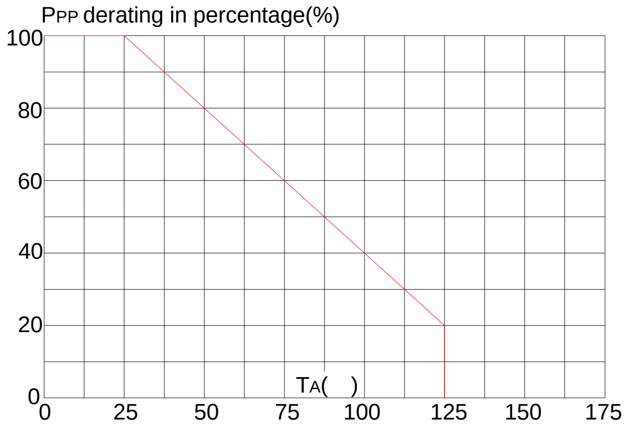
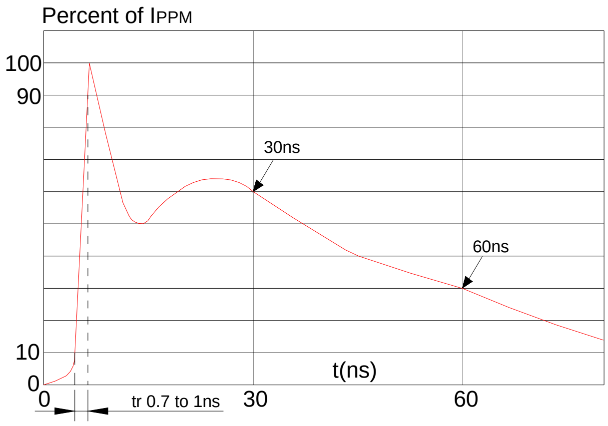
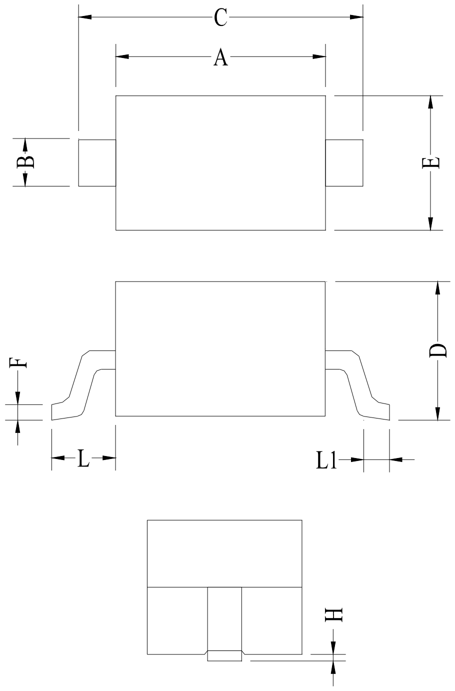


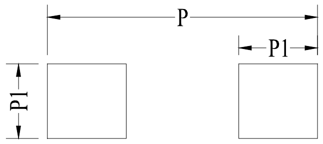
FIG.4: ESD clamping (30kV contact)



## SOLDERING5D3

## PACKAGE MECHANICAL DATA



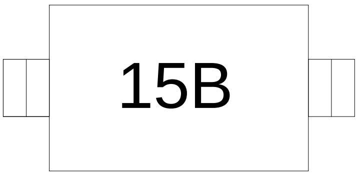


Land Pattern

| Symbol | Millimeters | | | Inches | | |
|---|---|---|---|---|---|---|
| | Min | Typ | Max | Min | Typ | Max |
| A | 1.60 | 1.70 | 1.80 | 0.063 | 0.067 | 0.071 |
| B | 0.25 | 0.32 | 0.40 | 0.010 | 0.013 | 0.016 |
| C | 2.30 | 2.60 | 2.80 | 0.091 | 0.102 | 0.110 |
| D | 0.80 | 0.95 | 1.10 | 0.031 | 0.037 | 0.043 |
| E | 1.20 | 1.30 | 1.40 | 0.047 | 0.051 | 0.055 |
| F | 0.08 | 0.13 | 0.18 | 0.003 | 0.005 | 0.007 |
| L | 0.475REF | | | 0.019REF | | |
| L1 | 0.25 | 0.33 | 0.40 | 0.010 | 0.013 | 0.016 |
| H | 0.00 | 0.06 | 0.14 | 0.000 | 0.002 | 0.006 |
| P | 3.00 | | | 0.118 | | |
| P1 | 0.80 | | | 0.031 | | |

JEB15D3

## MARKING CODE

| Part Number | Marking Code |
|---|---|
| JEB15D3 |  |

This document is the 2.5th version which is made in 23-June-2020. This document supersedes and replaces all information previously supplied.