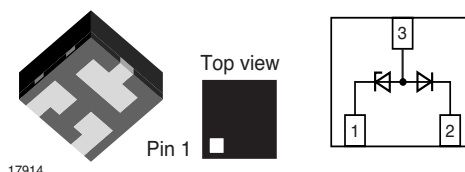


Low Capacitance ESD Protection Diodes for High-Speed Data Interfaces

Features

- Transient protection for data lines as per IEC 61000-4-2 (ESD) 15 kV (air) 8 kV (contact)
IEC 61000-4-5 (Lightning) see I_{PPM} below
- Small package for use in portable electronics
- Low capacitance for high speed data lines, cellular handsets, USB port protection, LAN equipment, peripherals
- Space saving LLP package
- Lead (Pb)-free component
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



Mechanical Data

Case: LLP75-3B Plastic case

Molding Compound Flammability Rating:

UL 94 V-0

Terminals: High temperature soldering guaranteed:

260 °C/10 sec. at terminals

Weight: approx. 5.2 mg

Parts Table

| Part | Ordering code | Marking | Remarks |
|----------|---------------|---------|---------------|
| GL05-HT3 | GL05-HT3-GS08 | 50 | Tape and Reel |
| GL12-HT3 | GL12-HT3-GS08 | 51 | Tape and Reel |
| GL15-HT3 | GL15-HT3-GS08 | 52 | Tape and Reel |
| GL24-HT3 | GL24-HT3-GS08 | 53 | Tape and Reel |

Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

| Parameter | Test condition | Symbol | Value | Unit |
|---------------------------------------------|-----------------------|-----------|-------|------|
| Peak pulse power | 8/20 μ s waveform | P_{PK} | 300 | W |
| Peak repetitive reverse voltage (rectifier) | | V_{RRM} | 70 | V |
| ESD voltage | ESD per IEC 61000-4-2 | V_{ESD} | >25 | kV |

Thermal Characteristics

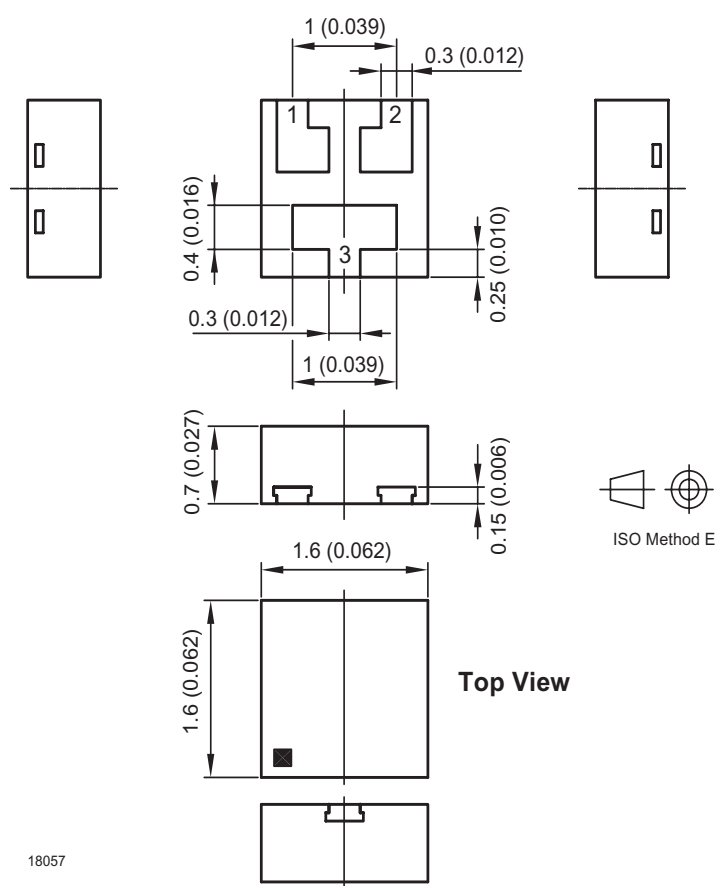
Ratings at 25 °C, ambient temperature unless otherwise specified

| Parameter | Test condition | Symbol | Value | Unit |
|-----------------------|----------------|--------------------|---------------|------|
| Operation temperature | | T_J | - 55 to + 125 | °C |
| Storage temperature | | T_{stg}, T_{STG} | - 55 to + 150 | °C |

Electrical Characteristic

| Partnumber | Marking Code | V_{RWM} | $V_{BR(min)}$ | $I_{R(max)}$ | $V_{C(max)}$ | | I_{PPM} | C_j Pin1 to Pin2 Pin3 NC |
|------------|--------------|-----------|--------------------------|---------------|--------------------------|--------------------------|-----------------------------------|------------------------------------------|
| | | | @ $I_t = 1.0 \text{ mA}$ | @ V_{RWM} | $I_{PP} = 1.0 \text{ A}$ | $I_{PP} = 5.0 \text{ A}$ | $t_p = 8/20 \text{ } \mu\text{s}$ | $V_R = 0\text{V}$ $f = 1 \text{ MHz}$ |
| | | V | V | μA | V | V | A | pF |
| GL05-HT3 | 50 | 5 | 6 | 20 | 9.8 | 11 | 17 | 5 |
| GL12-HT3 | 51 | 12 | 13.3 | 1 | 19 | 24 | 12 | 5 |
| GL15-HT3 | 52 | 15 | 16.7 | 1 | 24 | 33 | 10 | 5 |
| GL24-HT3 | 53 | 24 | 26.7 | 1 | 43 | 55 | 5 | 5 |

Package Dimensions in mm (Inches)





Ozone Depleting Substances Policy Statement

It is the policy of Vishay Semiconductor GmbH to

1. Meet all present and future national and international statutory requirements.
2. Regularly and continuously improve the performance of our products, processes, distribution and operating systems with respect to their impact on the health and safety of our employees and the public, as well as their impact on the environment.

It is particular concern to control or eliminate releases of those substances into the atmosphere which are known as ozone depleting substances (ODSs).

The Montreal Protocol (1987) and its London Amendments (1990) intend to severely restrict the use of ODSs and forbid their use within the next ten years. Various national and international initiatives are pressing for an earlier ban on these substances.

Vishay Semiconductor GmbH has been able to use its policy of continuous improvements to eliminate the use of ODSs listed in the following documents.

1. Annex A, B and list of transitional substances of the Montreal Protocol and the London Amendments respectively
2. Class I and II ozone depleting substances in the Clean Air Act Amendments of 1990 by the Environmental Protection Agency (EPA) in the USA
3. Council Decision 88/540/EEC and 91/690/EEC Annex A, B and C (transitional substances) respectively.

Vishay Semiconductor GmbH can certify that our semiconductors are not manufactured with ozone depleting substances and do not contain such substances.

We reserve the right to make changes to improve technical design
and may do so without further notice.

Parameters can vary in different applications. All operating parameters must be validated for each customer application by the customer. Should the buyer use Vishay Semiconductors products for any unintended or unauthorized application, the buyer shall indemnify Vishay Semiconductors against all claims, costs, damages, and expenses, arising out of, directly or indirectly, any claim of personal damage, injury or death associated with such unintended or unauthorized use.

Vishay Semiconductor GmbH, P.O.B. 3535, D-74025 Heilbronn, Germany



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