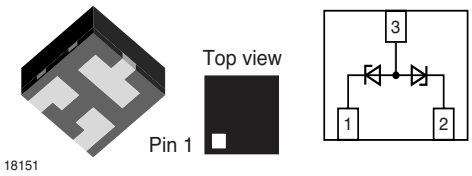
ESD Protection Diode

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
- 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
GSOT03C-HT3	GSOT03C-HT3-GS08	03	Tape and Reel
GSOT04C-HT3	GSOT04C-HT3-GS08	04	Tape and Reel
GSOT05C-HT3	GSOT05C-HT3-GS08	05	Tape and Reel
GSOT08C-HT3	GSOT08C-HT3-GS08	08	Tape and Reel
GSOT12C-HT3	GSOT12C-HT3-GS08	12	Tape and Reel
GSOT15C-HT3	GSOT15C-HT3-GS08	15	Tape and Reel
GSOT24C-HT3	GSOT24C-HT3-GS08	24	Tape and Reel
GSOT36C-HT3	GSOT36C-HT3-GS08	36	Tape and Reel

Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Peak power dissipation[1)]	8/20 µs pulse	P_{PK}	300	W
Forward surge current	8.3 ms single half sine-wave	I_{FSM}	7	A

[1)] Non-repetitive current pulse and derated above T_A = 25 °C

Thermal Characteristics

Ratings at 25 °C, ambient temperature unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Operation and storage temperature range		T_{stg}, T_J	- 55 to + 150	°C

Electrical Characteristics

Partnumber	Device Marking Code	Rated Stand-off Voltage	Minimum Breakdown Voltage	Maximum Clamping Voltage		Maximum Pulse Peak Current	Maximum Leakage Current	Maximum Capacitance
		V_{WM}	V_{BR}	V_C		I_{PPM}	I_D	C
			@ 1 mA	@ I_{PP} = 1 A	@ I_{PP} = 5 A	t_p = 8/20 µs	@ V_{WM}	@ 0 V, 1 MHz
		V	V	V	V	A	µA	pF
GSOT03C-HT3	03	3.3	4.5	7	9	18	125	600
GSOT04C-HT3	04	4	5	8.5	10.5	17	125	600
GSOT05C-HT3	05	5	6	9.8	12.5	17	100	400
GSOT08C-HT3	08	8	8.5	13.4	15	15	10	350
GSOT12C-HT3	12	12	13.3	19	28	12	2	150
GSOT15C-HT3	15	15	16.7	24	35	10	1	100
GSOT24C-HT3	24	24	26.7	43	60	5	1	63
GSOT36C-HT3	36	36	40	60	75	2	1	60

Typical Characteristics (Tamb = 25 °C unless otherwise specified)

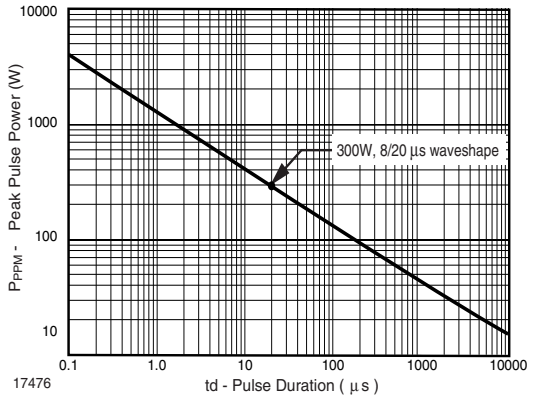


Figure 1. Non -Repetitive Peak Pulse Power vs. Pulse Time

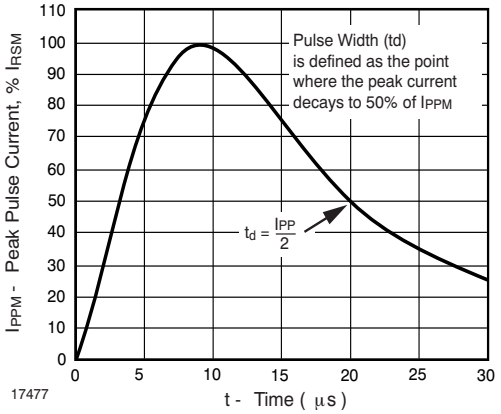


Figure 2. Pulse Waveform

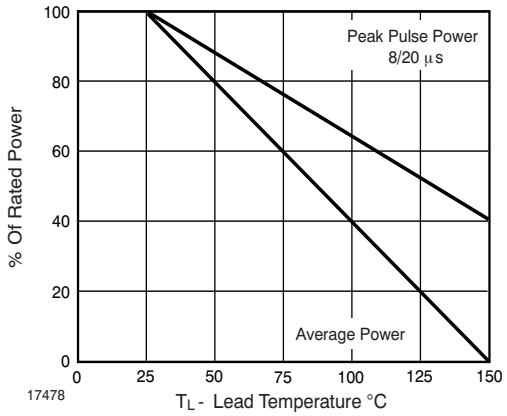
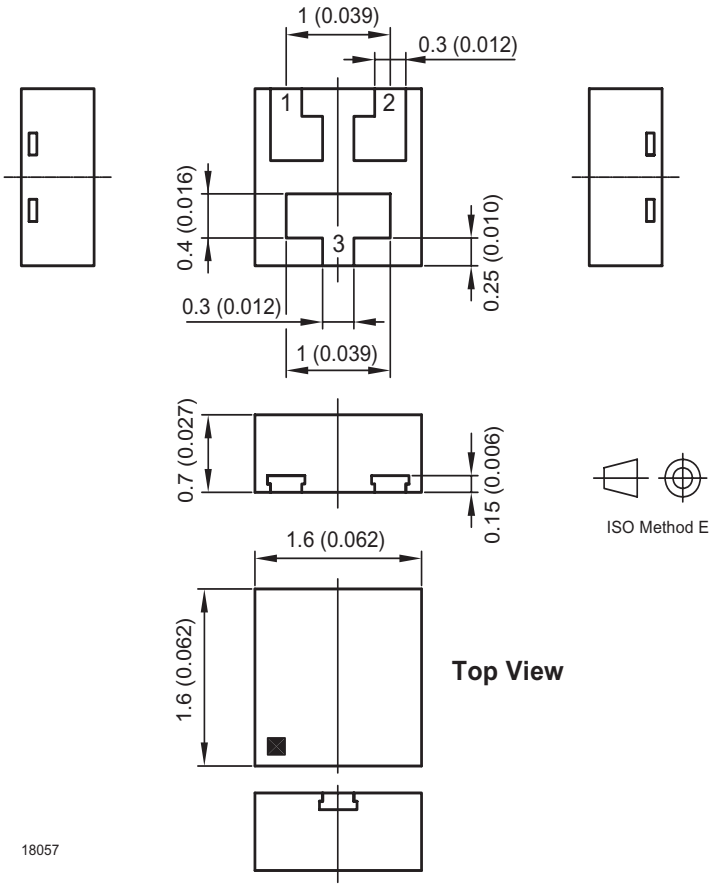


Figure 3. Power Derating

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.

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