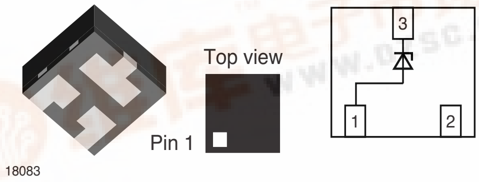
ESD Protection Diode

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
GSOT03-HT3	GSOT03-HT3-GS08	A3	Tape and Reel
GSOT04-HT3	GSOT04-HT3-GS08	A4	Tape and Reel
GSOT05-HT3	GSOT05-HT3-GS08	A5	Tape and Reel
GSOT08-HT3	GSOT08-HT3-GS08	A6	Tape and Reel
GSOT12-HT3	GSOT12-HT3-GS08	A7	Tape and Reel
GSOT15-HT3	GSOT15-HT3-GS08	A8	Tape and Reel
GSOT24-HT3	GSOT24-HT3-GS08	A9	Tape and Reel
GSOT36-HT3	GSOT36-HT3-GS08	AA	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

Part Number	Device Marking Code	Rated Stand-off Voltage	Minimum Breakdown Voltage	Maximum Clamping Voltage		Maximum Peak Pulse Current	Maximum Leakage Current	Maximum Capacitance
			@ 1 mA	@ I_{PP} = 1 A	@ I_{PP} = 5 A	t_p = 8/20 µs	@ V_{WM}	@ 0 V, 1 MHz
		V_{WM}	V_{BR}	V_C		I_{PPM}	I_D	C
		V	V	V		A	µA	pF
GSOT03-HT3	A3	3.3	4	6.5	7.5	18	125	800
GSOT04-HT3	A4	4	5	8.5	10.5	17	125	800
GSOT05-HT3	A5	5	6	9.8	12.5	17	100	550
GSOT08-HT3	A6	8	8.5	13.4	15	15	10	400
GSOT12-HT3	A7	12	13.3	19	28	12	2	185
GSOT15-HT3	A8	15	16.7	24	35	10	1	140
GSOT24-HT3	A9	24	26.7	43	60	5	1	83
GSOT36-HT3	AA	36	40	60	75	2	1	80

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

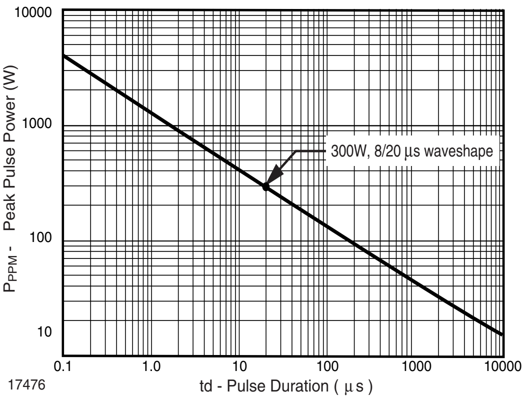


Figure 1. Non -Repetitive Peak Pulse Power vs. Pulse Time

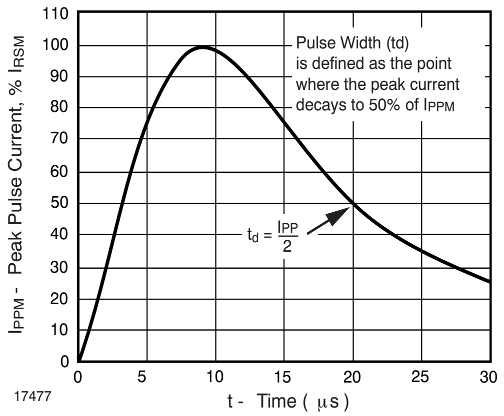


Figure 2. Pulse Waveform

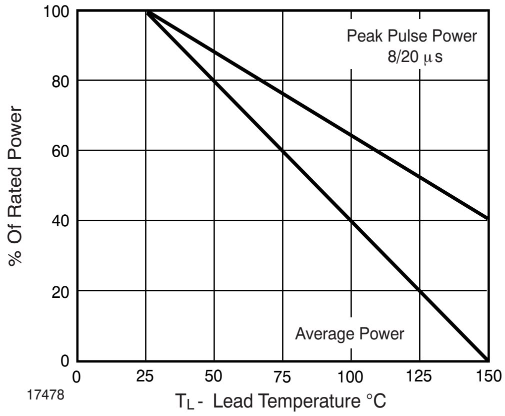
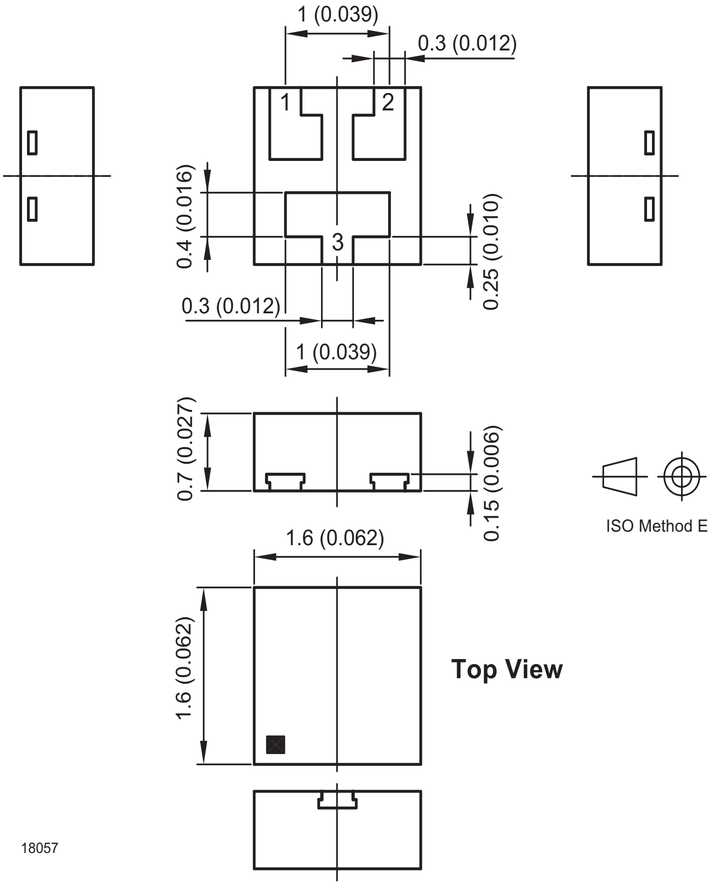


Figure 3. Power Derating

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.

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

Notice