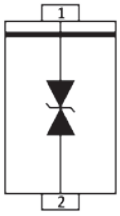
200 WATT ASYMMETRICAL LINE PROTECTION TVS ARRAY – PESD1LIN

SOD-323 PACKAGE



The manufacturer ProTek Devices introduces an asymmetric TVS Array front line protection of LIN (Local Interconnect Network) BUS BUS systems, which is designed for industrial applications such as field devices, protocol converters and gateways. The new circuit protection device is designed for a peak power of 200 watts per line and a secondary overvoltage, can be caused by lightning, for a period of 8/20 microseconds. The component PESD1LIN is available in a bidirectional configuration and an ideal replacement for multilayer varistors (MLV 0805) in LIN BUS applications. The component was designed to protect power line or I/O interfaces, to provide an asymmetric line protection of 15 V (pin 1-2) and 24 V (pin 2-1). A further advantage is the low clamping voltage. The minimum breakdown voltage is 17.2 V at 15 mA (pin 1-2) and 25.5 V (pin 2-1).

With the PESD1LIN and the last year presented PESD1CAN and PESD2CAN the company Endrich provides its customers technically sophisticated solutions for the most common bus systems in industrial area.

APPLICATIONS

» Automotive applications
» Local Interconnect Network (LIN) Bus Protection

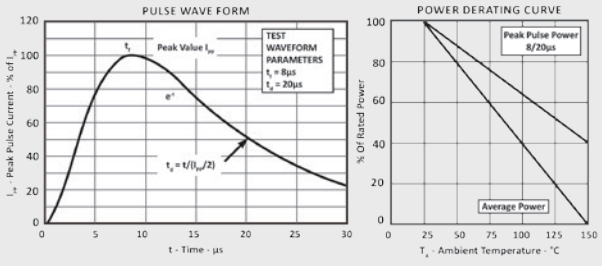
FEATURES

» Compatible to IEC 61000-4-2 (ESD): Air 15 kV, contact 8 kV
» Compatible to IEC 61000-4-4 (EFT): 40 A, 5/50 ns
» Compatible to IEC 61000-4-5 (Surge): 24 A, 8/20 µs - Level 2 (Line-Gnd) & Level 3 (Line-Line)
» 200 W peak pulse power per line (tp = 8/20 µs)
» Replacement for MLV (0805)
» Bidirectional configuration
» Low clamping voltage
» Asymmetrical line protection: Pin1-2 - 15 V, Pin 2-1 - 24 V
» RoHS compatible, REACH compatible
» Lead-free-pure-tin plating
» Reflow soldering temperature: 260-270°C
» Flammability rating UL 94V-0

MAXIMUM RATINGS

PARAMETER	VALUE
Operating-/storage temp. T_{OPR} / T_{STG} [°C]	-55 ... +150
Peak pulse power [W] P_{FP} (tp=8/20µs)	200
Peak pulse current [A] I_{FP} (tp=8/20µs)	24

PULSE WAVE FORM / POWER DERATING CURVE



ELECTRICAL CHARACTERISTICS PER LINE

CONFIGURATION	DEVICE MARKING	RATED STAND-OFF VOLTAGE V_{WM} [V]	MIN. BREAKDOWN VOLTAGE V_{BR} [V] @ 15mA	MAX. CLAMPING VOLT. [V] @ 8/20µs, I_P=1A	MAX. CLAMPING VOLT. [V] @ 8/20µs @ I_{FP}	MAX. LEAKAGE CURRENT I_D [nA] @ V_{WM}	TYP. CAPACITANCE [pF] @ 0V, 1MHz
Pin 1 zu 2	54	15	17.2	25 V	44 V @ 5 A	45	17
Pin 2 zu 1		24	25.5	40 V	70 V @ 3 A	45	17

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Contact for information: Mr. Kiraly · Tel. +49(0)7452-6007-63 · e-mail: m.kiraly@endrich.com