

BIDIRECTIONAL TVS DIE

APPLICATIONS

- LEDs

FEATURES

- Compatible with IEC 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- Available in 5.0V
- Bidirectional Configuration and Monolithic Structure
- Protection for 1 Line
- RoHS Compliant
- REACH Compliant

PIN CONFIGURATION



MECHANICAL CHARACTERISTICS

- Lead-Free Plating
- Solder Reflow Temperature:
 - Lead-Free - Sn/Ag/Cu, 96/3.5/0.5: 260-270°C
- Flammability Rating UL 94V-0
- Thickness 4 mils
- Metalization: Top Metal - Ni/Au

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified

PART NUMBER	RATED STAND-OFF VOLTAGE V_{WM} VOLTS	MINIMUM BREAKDOWN VOLTAGE @ 1mA $V_{(BR)}$ VOLTS	MAXIMUM LEAKAGE CURRENT (Note 1) @ V_{WM} I_D μA	TYPICAL CAPACITANCE @ 0V, 1MHz C pF
PLED05F189	5.0	6.0	10	10

NOTES

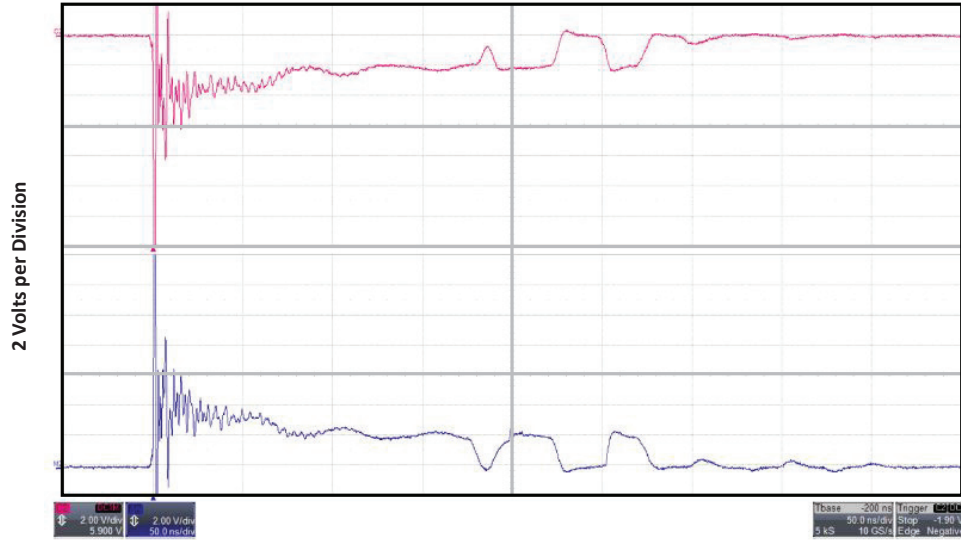
1. Maximum leakage current < 500nA @ 3.3V.

MAXIMUM RATINGS @ 25°C Unless Otherwise Specified

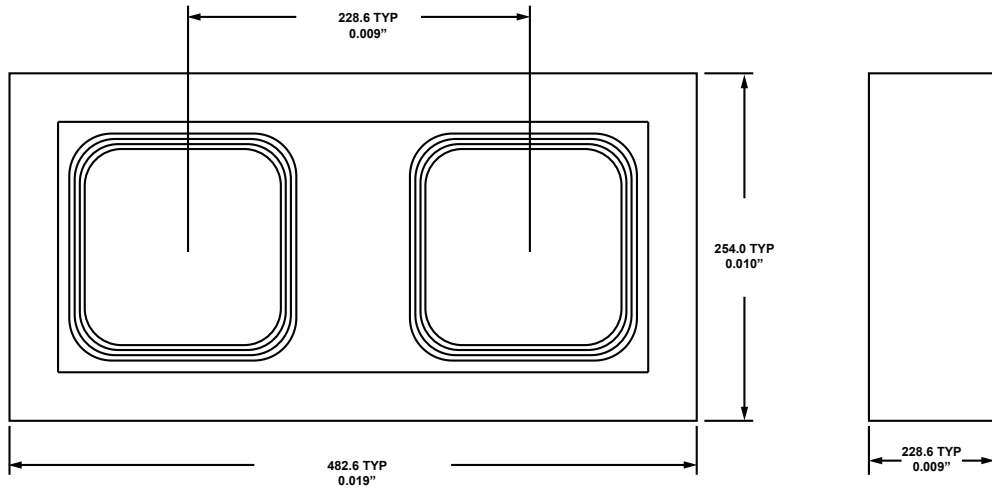
PARAMETER	SYMBOL	VALUE	UNITS
Operating Temperature	T_A	-55 to 150	°C
Storage Temperature	T_{STG}	-55 to 150	°C

TYPICAL DEVICE CHARACTERISTICS

FIGURE 3
8kV POSITIVE & NEGATIVE ESD CLAMPING WAVEFORM



MASK OUTLINE



Controlling Dimension: Microns

COMPANY INFORMATION

COMPANY PROFILE

In business more than 25 years, ProTek Devices™ is a privately held semiconductor company. The company offers a product line of overvoltage protection and overcurrent protection components. These include transient voltage suppressor array (TVS arrays) avalanche breakdown diode, steering diode TVS array and electronics SMD chip fuses. These components deliver circuit protection in electronic systems from numerous overvoltage and overcurrent events. They include lightning; electrostatic discharge (ESD); nuclear electromagnetic pulses (NEMP); inductive switching; and electromagnetic interference (EMI) / radio frequency interference (RFI). ProTek Devices also offers LED wafer die for ESD protection and related high frequency products. ProTek Devices is ISO 9001:2015 certified.

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