

3 POLE LED DRIVER & BALLAST PROTECTION MODULE

DESCRIPTION

The PBSP-10K Series is designed to be used in conjunction with LED drivers, electric fluorescent and HID ballasts to provide an additional level of protection against power line disturbances in industrial and commercial applications.

FEATURES

- Meets ANSI C136.2 / IEEE C62.41.2 Location Category C High Exposure
- IP66 Waterproof and Dustproof
- Compliance to UL1449 Type 4 Component Assembly
- Compliance to IEC 61643-11 Class II / EN61643-11 Type 2
- Compliance to CE Class I & II Installation
- Compact Form Factor With Mounting Tabs
- UL Approved: E475235
- Protects Line to Neutral, Line to Ground and Neutral to Ground in Accordance with IEEE/ANSI C62.41.2 Guidelines
- Compliance to IEC 61000-4-5, Class 5, 20kV @ 1.2/50 μ s, 10kA @ 8/20 μ s using 20 Ω Source Impedance
- High Temperature Flameproof Plastic Enclosure
- Maximum Temperature Rating of 85°C
- Pulse Rating @ 8/20 μ s (No. of Strikes @ I):
 - 1 @ 10,000A
 - 2 @ 6,500A
 - 10 @ 3,000A
 - 1000 @ 1,500A

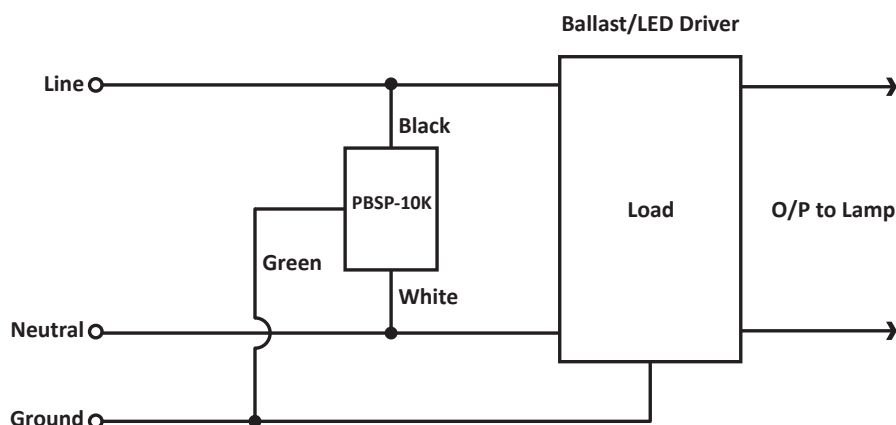
APPLICATIONS

- LED Drivers
- Universal Voltage Ballast

MECHANICAL CHARACTERISTICS

- High Temperature Flameproof Plastic Enclosure
- Maximum Temperature Raing of 85°C (Surface)
- Approximate Weight: 116 grams
- Flammability Rating UL 94V-0
- Marking: Logo, Part Number, Device Information

APPLICATION



TYPICAL DEVICE CHARACTERISTICS

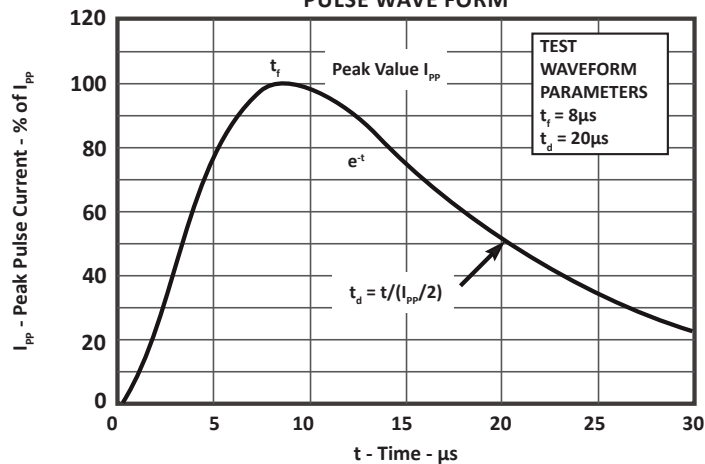
MAXIMUM RATINGS @ 25°C Unless Otherwise Specified

PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Current (tp = 8/20μs)	I_{PP}	10,000	Amps
Operating Temperature	T_L	-40 to 85	°C
Storage Temperature	T_{STG}	-40 to 85	°C

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified

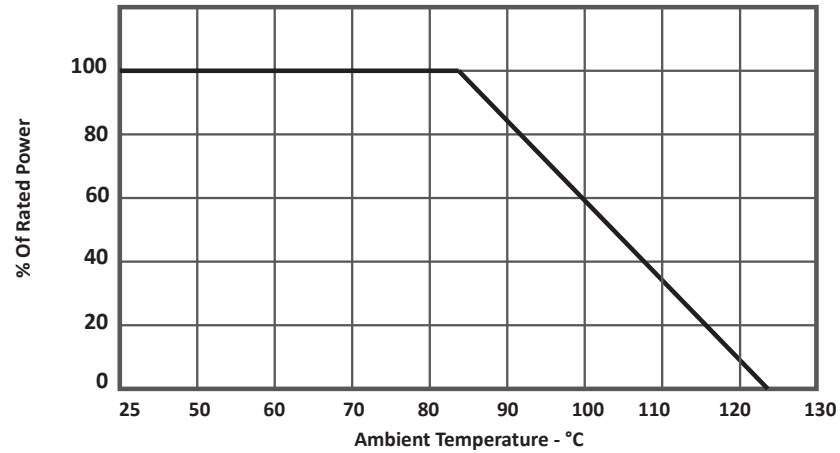
PART NUMBER	RATED STAND-OFF VOLTAGE	ENERGY @2ms	MAXIMUM PEAK PULSE CURRENT (8/20μs)	MAXIMUM CLAMPING VOLTAGE (Fig. 1)	TYPICAL CAPACITANCE
	V_{WM} VOLTS AC	W_V 1 X PULSE JOULES	I_{PP} AMPS	@ $I_p = 100A$ V_C VOLTS	@0V, 1MHz C pF
PBSP-120-10K	120	275	10000	660	1500
PBSP-220-10K	220	440	10000	1350	750
PBSP-240-10K	240	460	10000	1355	740
PBSP-277-10K	277	500	10000	1400	720
PBSP-380-10K	380	565	10000	1680	600

FIGURE 1
PULSE WAVE FORM

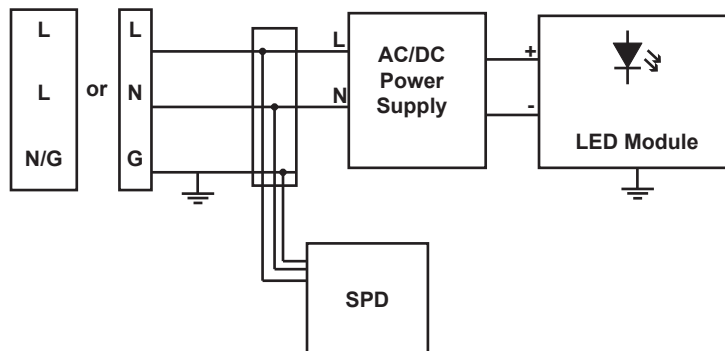


TYPICAL DEVICE CHARACTERISTICS

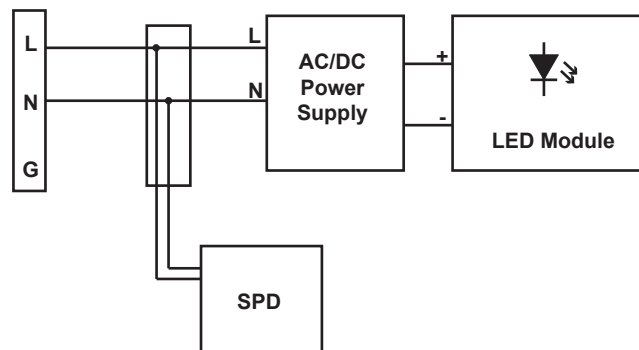
FIGURE 2
POWER DERATING CURVE



Parallel Connection

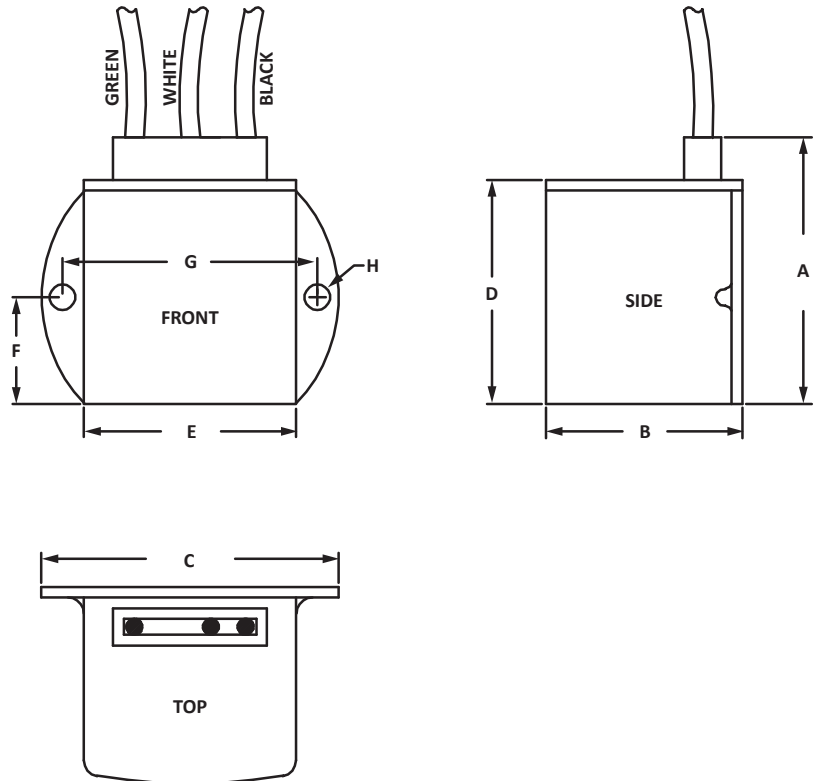


Parallel Connection - for Class 2 Unearthed



PACKAGE INFORMATION

SOLDER PAD OUTLINE DIMENSIONS				
DIM	INCHES		MILIMETERS	
	MIN	MAX	MIN	MAX
A	1.95	1.99	49.5	50.5
B	1.44	1.48	36.5	37.5
C	2.18	2.22	55.5	56.5
D	1.63	1.67	41.5	42.5
E	1.55	1.59	39.5	40.5
F	0.77	0.81	19.5	20.5
G	1.87	1.91	47.5	48.5
H	0.19	0.21	4.8	5.2



PROTEK[®] DEVICES

LED DRIVER & BALLAST SURGE PROTECTORS

Model: (Fig 1)

Nominal Range: (Fig 1)

Protected lines: Line-Neutral,

Line-Ground

Ground-Neutral



Clamping Voltage: (Fig 1)

Max Surge Current: (Fig 1)

Case Temperature: 85 C D.C. YYWW

Black:(Fig 1), White:com, Green:Ground

PART NUMBER	NOMINAL RANGE	CLAMPING VOLTAGE	MAX. SURGE	VOLTAGE (BLACK)
PBSP-120-10K	120 VAC 50/60Hz	345V	10KA	120V
PBSP-220-10K	220 VAC 50/60Hz	650V	10KA	220V
PBSP-240-10K	240 VAC 50/60Hz	650V	10KA	240V
PBSP-277-10K	277 VAC 50/60Hz	650V	10KA	277V
PBSP-380-10K	380 VAC 50/60Hz	1200V	10KA	380V

COMPANY INFORMATION

COMPANY PROFILE

In business more than 20 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.

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