

3 POLE LED DRIVER & BALLAST PROTECTION MODULE

DESCRIPTION

The PBSP-20K Series are 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
- Surge Current 20,000 Amps @ 8/20 μ s Waveform
- High Temperature Flameproof Plastic Enclosure
- Maximum Temperature Rating of 85°C
- Pulse Rating @ 8/20 μ s (No. of Strikes @ I):
 - 1 @ 20,000A
 - 2 @ 13,000A
 - 10 @ 6,000A
 - 1000 @ 3,000A

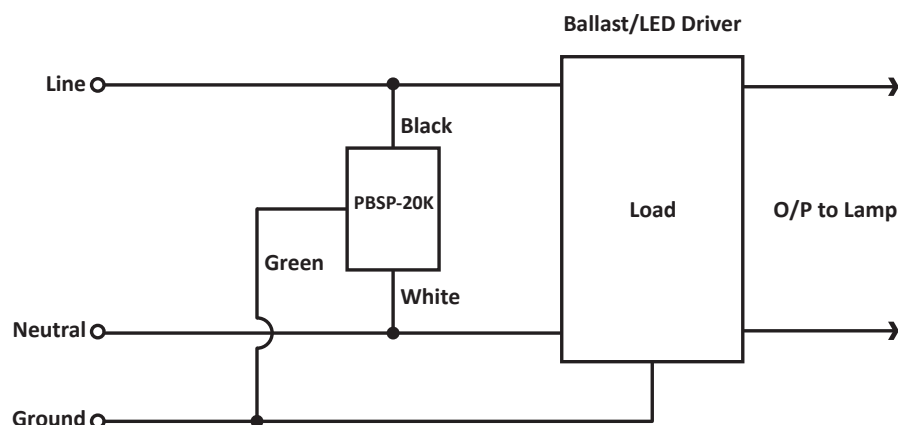
APPLICATIONS

- 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

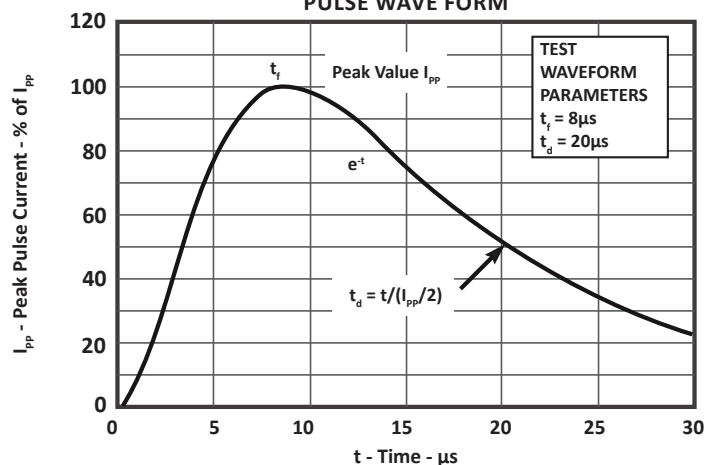
MAXIMUM RATINGS @ 25°C Unless Otherwise Specified

PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Current (tp = 8/20μs)	I_{PP}	20,000	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

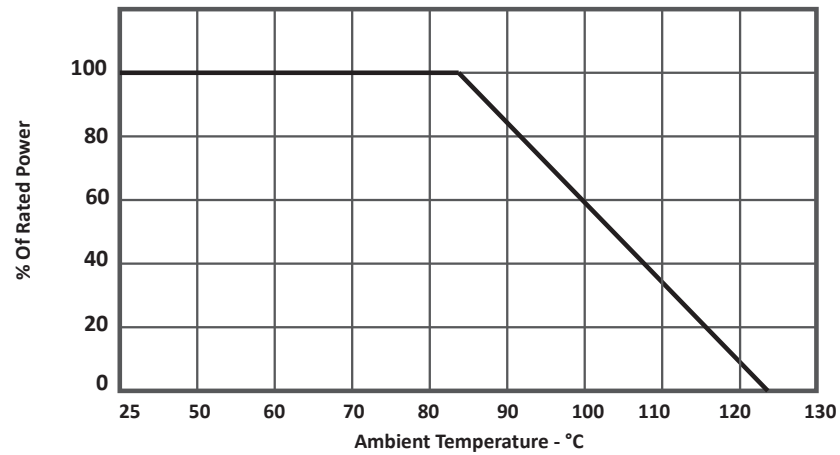
PART NUMBER	RATED STAND-OFF VOLTAGE	ENERGY @2ms	MAXIMUM PEAK PULSE CURRENT (8/20μs)	MAXIMUM CLAMPING VOLTAGE (Fig. 1)	TYPICAL CAPACITANCE
	V_{WM} VOLTS AC	W_V 1 X PULSE JOULES	I_{PP} AMPS	@ $I_p = 100A$ V_C VOLTS	@0V, 1MHz C pF
PBSP-120-20K	120	550	20000	650	3000
PBSP-220-20K	220	880	20000	1350	1500
PBSP-240-20K	240	920	20000	1355	1480
PBSP-277-20K	277	1100	20000	1500	1400

FIGURE 1
PULSE WAVE FORM

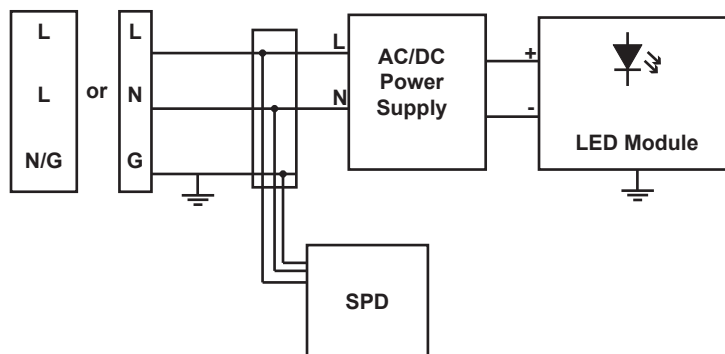


TYPICAL DEVICE CHARACTERISTICS

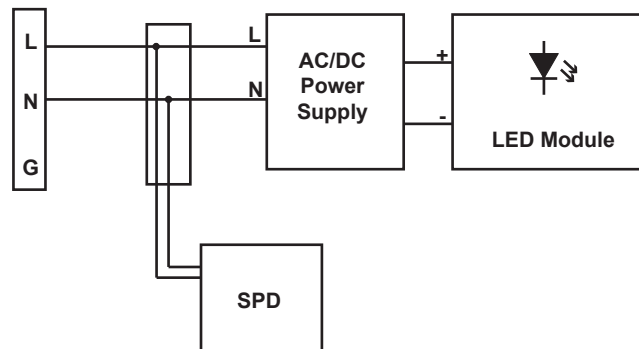
FIGURE 2
POWER DERATING CURVE



Parallel Connection

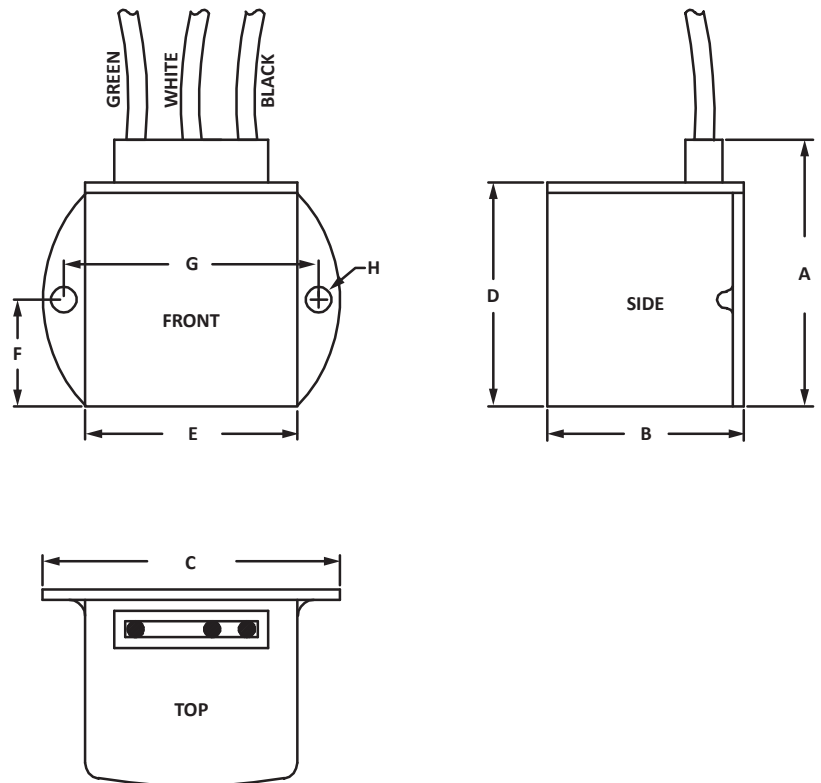


Parallel Connection - for Class 2 Unearthed



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-120-20K	120 VAC 50/60Hz	345V	20KA	120V
PBSP-220-20K	220 VAC 50/60Hz	650V	20KA	220V
PBSP-240-20K	240 VAC 50/60Hz	650V	20KA	240V
PBSP-277-20K	277 VAC 50/60Hz	650V	20KA	277V
PBSP-380-20K	380 VAC 50/60Hz	1200V	20KA	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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