

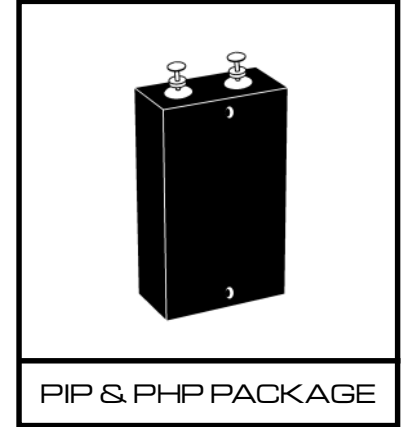
AC POWER BUS VOLTAGE SUPPRESSOR

APPLICATIONS

- ✓ Secondary AC Power Supply
- ✓ Aircraft & Shipboard AC Power Bus
- ✓ Heavy Duty AC Switching Power

FEATURES

- ✓ *Meets the Following Military Specifications:*
 - DOD-STD-1389
 - MIL-STD-2036
 - MIL-STD-704
 - MIL-PRF-STD-19500/507
- ✓ 7,500 & 15,000 Watts Peak Pulse Power per Line (tp=10/1000µs)
- ✓ Each Device 100% Tested
- ✓ Available in Multiple Voltages Ranging From: 8.4V to 500V



MECHANICAL CHARACTERISTICS

- ✓ Hermetically Sealed Glass to Metal Sub-Assemblies (PHP)
- ✓ Sub-Assemblies are Packaged in Molded Epoxy Case (PIP)
- ✓ Weight 46 grams (Approximate)
- ✓ Flammability rating UL 94V-0
- ✓ Device Marking: Logo & Part Number
- ✓ Screening Available Upon Request - The PHP & PIP series can be screened upon request for military requirements in accordance with MIL-PRF-19500 (applicable test). Standard screening is available based on the following options:
 - H1 - Submodule Screening per test plans 05231 & 05232
 - H2 - Submodule & Module Screening per test plan 05233
 - H3 - Submodule & Module Screening, Module Group B & C Lot Testing per test plans 05234 & 05235

| MAXIMUM RATINGS @ 25°C Unless Otherwise Specified | | | |
|---|------------------|----------------|-----------|
| PARAMETER | SYMBOL | VALUE | UNITS |
| Peak Pulse Power (tp = 10/1000µs) - See Figure 1 | P _{PP} | 7.5 & 15 | kilowatts |
| Operating Temperature | T _J | -55°C to 150°C | °C |
| Storage Temperature | T _{STG} | -55°C to 150°C | °C |
| Steady State Power Dissipation @ 50°C | T _A | 7.5 | Watts |

PHP8.4-PHP500 thru PIP8.4-PIP500

DEVICE CHARACTERISTICS

| ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified | | | | | | | |
|---|---------------------|-------------------------|---|--|--------------------------------|----------------------------|--------------------------------|
| PART NUMBER (See Notes 1-2) | AVERAGE RMS VOLTAGE | RATED STAND-OFF VOLTAGE | MINIMUM BREAKDOWN VOLTAGE (See Note 1) | MAXIMUM CLAMPING VOLTAGE (See Fig. 2) | MAXIMUM LEAKAGE CURRENT | MAXIMUM PEAK PULSE CURRENT | MAXIMUM PEAK PULSE POWER |
| | V_{RMS} VOLTS | V_{WM} VOLTS | @ 1mA $V_{(BR)}$ VOLTS | @ I_{PPM} V_C VOLTS | @ V_{WM} I_D μA | I_{PPM} AMPS | @ 1ms P_{PP} KILOWATTS |
| PHP8.4 | 8.4 | 12.0 | 14 | 22 | 250 | 341 | 7.5 |
| PHP24 | 24.0 | 34.0 | 40 | 67 | 250 | 112 | 7.5 |
| PHP30 | 30.0 | 42.5 | 50 | 84 | 250 | 90 | 7.5 |
| PHP60 | 60.0 | 85.0 | 100 | 167 | 250 | 90 | 15.0 |
| PHP120* | 120.0 | 170.0 | 200 | 319 | 250 | 47 | 15.0 |
| PHP208 | 208.0 | 295.0 | 347 | 536 | 250 | 28 | 15.0 |
| PHP250* | 250.0 | 354.0 | 418 | 652 | 250 | 23 | 15.0 |
| PHP440 | 440.0 | 623.0 | 735 | 1138 | 250 | 13.2 | 15.0 |
| PHP500* | 500.0 | 708.0 | 835 | 1292 | 250 | 11.6 | 15.0 |
| PIP8.4 | 8.4 | 12.0 | 14 | 22 | 250 | 341 | 7.5 |
| PIP24 | 24.0 | 34.0 | 40 | 67 | 250 | 112 | 7.5 |
| PIP30 | 30.0 | 42.5 | 50 | 84 | 250 | 90 | 7.5 |
| PIP60 | 60.0 | 85.0 | 100 | 167 | 250 | 90 | 15.0 |
| PIP120* | 120.0 | 170.0 | 200 | 319 | 250 | 47 | 15.0 |
| PIP208 | 208.0 | 295.0 | 347 | 536 | 250 | 28 | 15.0 |
| PIP250* | 250.0 | 354.0 | 418 | 652 | 250 | 23 | 15.0 |
| PIP440 | 440.0 | 623.0 | 735 | 1138 | 250 | 13.2 | 15.0 |
| PIP500* | 500.0 | 708.0 | 835 | 1292 | 250 | 11.6 | 15.0 |

Note 1: An * indicates that this series is recommended for marine applications. For military and aerospace applications, use the PHP Series. For industrial applications use the PIP Series

Note 2: The following devices have a peak pulse power rating of 7,500W for a 10/1000 μs waveform (see Figure 1): 8.4V, 24V and 30V.

GRAPHS

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

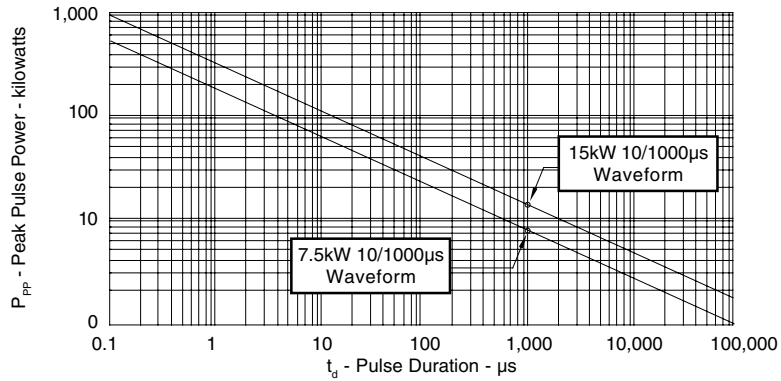


FIGURE 2
PULSE WAVE FORM

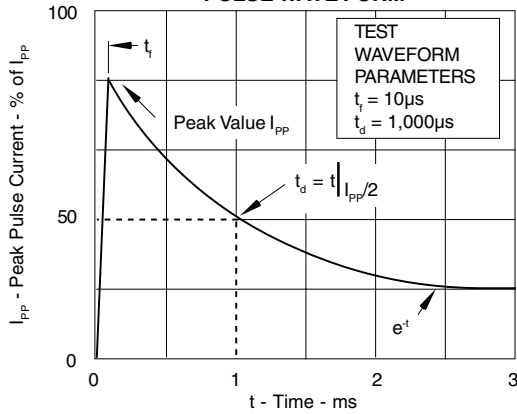
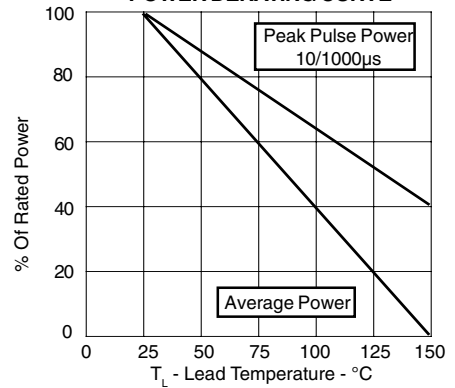
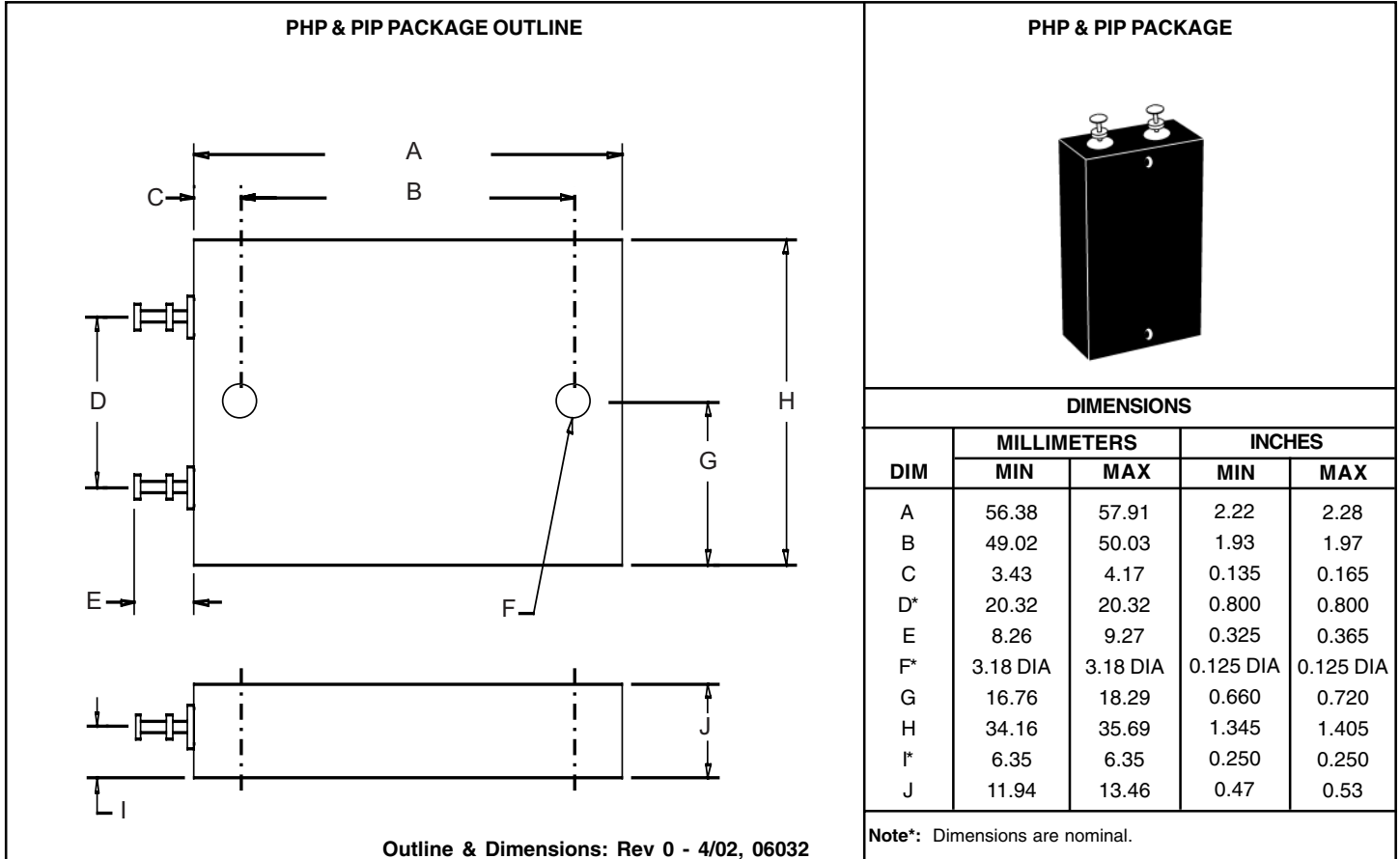


FIGURE 3
POWER DERATING CURVE



PHP8.4-PHP500 thru PIP8.4-PIP500

PACKAGE OUTLINE & DIMENSIONS



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