

SERIES PLR-Lowest Profile Series 0.300"

**Isolated Regulated up to 5 Watt
DC-DC Converters
Wide Input Range/up to 3.33:1
Fully Regulated
All Units Shielded**



**New 100 VDC
Output Models**

SERIES PLR SINGLE OUTPUT

FEATURES:

- Voltage regulation over input of

| | |
|--------------|----|
| LOW | HI |
| PLRE 5V 15V | |
| PLRF 8V 24V | |
| PLRA 18V 36V | |
| PLRB 36V 60V | |
| PLRC 18V 60V | |
- .300" Height
- Encapsulated semiconductors, conservatively rated for maximum reliability.
- Load regulation (see table for typical variation at different loads)
- Line regulation = Typical values

| |
|---------------------|
| 5-15 V DC = ± 1.5% |
| 8-24 V DC = ± 1.5% |
| 18-36 V DC = ± 1.0% |
| 36-60 V DC = ± 1.0% |
| 18-60 V DC = ± 1.5% |
- High efficiency—up to 80%
- Will operate over a temperature range of -25°C to +70°C with no heat sink or electrical derating
- 6 sided shielding
- Isolation—100 megohms at 500 volts DC
- External output trimming pin standard, +5%
- Single and dual isolated outputs
- Each unit is supplied with an external control pin. This "C" pin, when connected to the negative (-) input, will disable the unit, allowing for remote shutdown.

| PICO PART NUMBER | INPUT VOLTAGE RANGE | OUTPUT VOLTAGE DC | MAX. LOAD CURRENT mA | MAX. OUTPUT POWER (watts) | EFF. @ FULL LOAD TYPICAL (%)* | INPUT CURRENT FULL LOAD TYPICAL (mA)* | OUT VOLT RIPPLE @ FULL LD. 1-1 MHz BW mw p-p | OUT VOLT TOLERANCE (±%)* | VLD. REG. 25%-100% LOAD ‡ (±%)* | LINE REGULATION (±%)* | PRICE 1-24 |
|------------------|---------------------|-------------------|----------------------|---------------------------|-------------------------------|---------------------------------------|--|--------------------------|---------------------------------|-----------------------|------------|
| PLRE5S | 5-15 | 5 | 600 | 3 | 78 | 385 | 175 | 0.75 | 1.75 | 2.00 | 176.55 |
| PLRE9S | 5-15 | 9 | 444 | 4 | 78 | 515 | 125 | 0.50 | 1.50 | 1.50 | 176.55 |
| PLRE12S | 5-15 | 12 | 333 | 4 | 79 | 505 | 125 | 0.50 | 1.25 | 1.25 | 176.55 |
| PLRE15S | 5-15 | 15 | 267 | 4 | 79 | 505 | 125 | 0.50 | 1.25 | 1.25 | 176.55 |
| PLRE24S | 5-15 | 24 | 167 | 4 | 80 | 500 | 125 | 0.50 | 1.00 | 1.25 | 176.55 |
| PLRE28S | 5-15 | 28 | 143 | 4 | 80 | 500 | 125 | 0.50 | 1.00 | 1.00 | 176.55 |
| PLRE48S | 5-15 | 48 | 83 | 4 | 80 | 500 | 300 | 0.50 | 1.00 | 1.00 | 176.55 |
| PLRE100S | 5-15 | 100 | 40 | 4 | 80 | 500 | 300 | 0.50 | 1.0 | 1.0 | 220.69 |
| PLRF5S | 8-24 | 5 | 1000 | 5 | 78 | 400 | 150 | 0.75 | 1.75 | 2.00 | 176.55 |
| PLRF9S | 8-24 | 9 | 556 | 5 | 78 | 400 | 125 | 0.50 | 1.50 | 1.50 | 176.55 |
| PLRF12S | 8-24 | 12 | 417 | 5 | 79 | 395 | 125 | 0.50 | 1.25 | 1.25 | 176.55 |
| PLRF15S | 8-24 | 15 | 333 | 5 | 79 | 395 | 125 | 0.50 | 1.25 | 1.25 | 176.55 |
| PLRF24S | 8-24 | 24 | 208 | 5 | 80 | 390 | 125 | 0.50 | 1.00 | 1.25 | 176.55 |
| PLRF28S | 8-24 | 28 | 179 | 5 | 80 | 390 | 125 | 0.50 | 1.00 | 1.00 | 176.55 |
| PLRF48S | 8-24 | 48 | 104 | 5 | 80 | 390 | 250 | 0.50 | 1.00 | 1.00 | 176.55 |
| PLRF100S | 8-24 | 100 | 50 | 5 | 80 | 390 | 300 | 0.50 | 1.0 | 1.0 | 220.69 |
| PLRA5S | 18-36 | 5 | 1000 | 5 | 76 | 245 | 100 | 0.75 | 2.00 | 1.00 | 176.55 |
| PLRA9S | 18-36 | 9 | 556 | 5 | 76 | 245 | 100 | 0.50 | 2.00 | 0.50 | 176.55 |
| PLRA12S | 18-36 | 12 | 417 | 5 | 77 | 240 | 100 | 0.50 | 2.00 | 0.50 | 176.55 |
| PLRA15S | 18-36 | 15 | 333 | 5 | 79 | 235 | 100 | 0.50 | 1.50 | 0.50 | 176.55 |
| PLRA24S | 18-36 | 24 | 208 | 5 | 80 | 230 | 100 | 0.50 | 1.50 | 0.50 | 176.55 |
| PLRA28S | 18-36 | 28 | 179 | 5 | 80 | 230 | 100 | 0.50 | 1.50 | 0.50 | 176.55 |
| PLRA48S | 18-36 | 48 | 104 | 5 | 80 | 230 | 250 | 0.50 | 1.00 | 0.50 | 176.55 |
| PLRA100S | 18-36 | 100 | 50 | 5 | 80 | 230 | 300 | 0.50 | 1.0 | 1.0 | 220.69 |
| PLRB5S | 36-60 | 5 | 1000 | 5 | 74 | 140 | 100 | 0.75 | 1.75 | 0.50 | 208.65 |
| PLRB9S | 36-60 | 9 | 556 | 5 | 74 | 140 | 100 | 0.50 | 1.50 | 0.50 | 208.65 |
| PLRB12S | 36-60 | 12 | 417 | 5 | 74 | 140 | 100 | 0.50 | 1.00 | 0.25 | 208.65 |
| PLRB15S | 36-60 | 15 | 333 | 5 | 76 | 135 | 100 | 0.50 | 1.00 | 0.25 | 208.65 |
| PLRB24S | 36-60 | 24 | 208 | 5 | 76 | 135 | 100 | 0.50 | 0.75 | 0.25 | 208.65 |
| PLRB28S | 36-60 | 28 | 179 | 5 | 76 | 135 | 100 | 0.50 | 0.75 | 0.25 | 208.65 |
| PLRB48S | 36-60 | 48 | 104 | 5 | 76 | 135 | 200 | 0.50 | 0.75 | 0.25 | 208.65 |
| PLRB100S | 36-60 | 100 | 50 | 5 | 76 | 135 | 300 | 0.50 | 1.0 | 1.0 | 260.81 |
| PLRC5S | 18-60 | 5 | 1000 | 5 | 75 | 170 | 100 | 0.75 | 2.00 | 1.50 | 224.70 |
| PLRC9S | 18-60 | 9 | 556 | 5 | 75 | 170 | 100 | 0.50 | 1.50 | 1.00 | 224.70 |
| PLRC12S | 18-60 | 12 | 417 | 5 | 75 | 170 | 100 | 0.50 | 1.00 | 0.75 | 224.70 |
| PLRC15S | 18-60 | 15 | 333 | 5 | 77 | 165 | 100 | 0.50 | 1.00 | 0.75 | 224.70 |
| PLRC24S | 18-60 | 24 | 208 | 5 | 78 | 165 | 100 | 0.50 | 0.75 | 0.75 | 224.70 |
| PLRC28S | 18-60 | 28 | 179 | 5 | 78 | 165 | 100 | 0.50 | 0.75 | 0.75 | 224.70 |
| PLRC48S | 18-60 | 48 | 104 | 5 | 78 | 165 | 225 | 0.50 | 0.75 | 0.75 | 224.70 |
| PLRC100S | 18-60 | 100 | 50 | 5 | 78 | 165 | 300 | 0.50 | 1.0 | 1.0 | 280.88 |

OPTIONS AVAILABLE

- Expanded operating temp (-55°C to +85°C)
- Stabilization Bake (125°C ambient)
- Temperature Cycle (-55°C to +125°C)
- Hi Temp, full power burn in (100% power, 125°C case temp)

**Low Profile
0.3" Height**

* Measurements taken with input voltage set at mid value.
Ordering Instructions: No minimum. Net 30 days F.O.B. Mt. Vernon, New York.

‡ 10% minimum load required.
Each unit is supplied with an external control pin. This "C" pin, when connected to the negative (-) input, will disable the unit, allowing for remote shutdown.

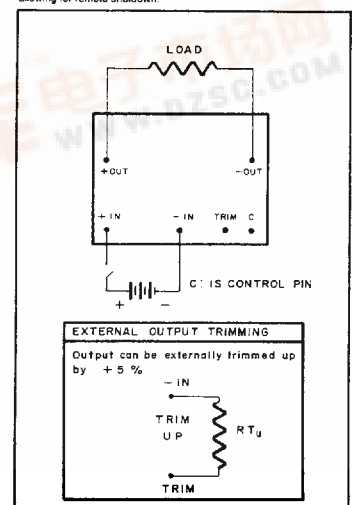
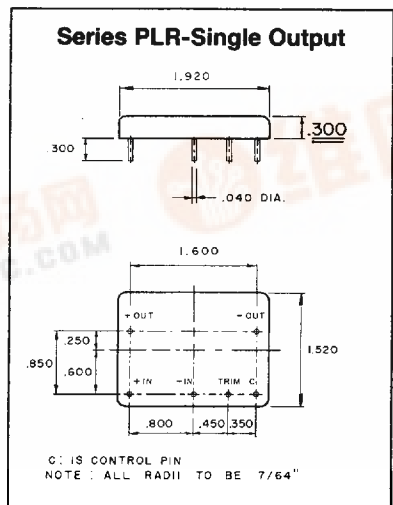
For immediate engineering assistance or to place an order—
Call Toll Free 800-431-1064

PICO Electronics, Inc.

453 North MacQuesten Pkwy.,
Mt. Vernon, New York 10552

914-699-5514 • FAX 914-699-5565

**Delivery—
stock to one week**



Typical Weight: 40 Grams



T-57-11

This series of Low Profile 0.300, high efficiency, wide input range, encapsulated regulators come in 75 different models. These units feature a 500 VOLT DC input to output isolation in both single and dual output models. The PLR Series will operate over a temperature range of -25°C TO +70°C with no heat sink or electrical derating. These units are excellent for applications where input voltage varies dramatically, yet a high efficiency and output voltage regulation must be maintained.

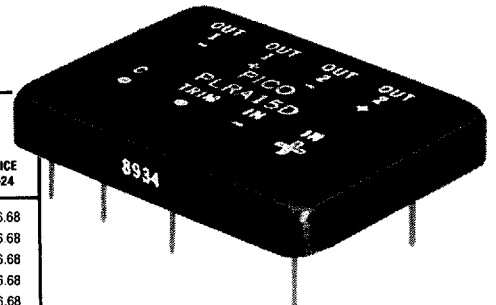
TYPICAL CHARACTERISTICS:

- Test conditions: 25°C ambient
- Operating temperature: -25°C to +70°C ambient
- Output voltage tolerance: ±1% at typical input voltage
- Output voltage temperature coefficient: 0.02%/°C
- Storage temperature: -55°C to +125°C
- Short circuit protection: Temporary
- Operating frequency: 40 Khtz, typ.

Lowest Profile Series 0.300"

SERIES PLR - DUAL OUTPUT

| PICO PART NUMBER | INPUT VOLTAGE RANGE | OUTPUT VOLTAGE DC PER OUTPUT | MAX. LOAD CURRENT (mA) PER OUTPUT | MAX. OUTPUT POWER (watts) PER OUTPUT | EFF. @ FULL LOAD TYPICAL (%)* | INPUT CURRENT FULL LOAD TYPICAL (mA)* | OUT VOLT RIPPLE @ FULL LD. 1-1 MHz BW mv p-p | OUT VOLT TOLERANCE (±%)* | VLD. REG. 25%-100% LOAD‡ (±%)* | LINE REGULATION (±%)* | PRICE 1-24 |
|------------------|---------------------|------------------------------|-----------------------------------|--------------------------------------|-------------------------------|---------------------------------------|--|--------------------------|--------------------------------|-----------------------|------------|
| PLRE5D | 5-15 | 5 | 300 | 1.5 | 78 | 385 | 175 | 0.75 | 1.75 | 2.00 | 216.68 |
| PLRE9D | 5-15 | 9 | 222 | 2.0 | 78 | 515 | 125 | 0.50 | 1.50 | 1.50 | 216.68 |
| PLRE12D | 5-15 | 12 | 167 | 2.0 | 79 | 505 | 125 | 0.50 | 1.25 | 1.25 | 216.68 |
| PLRE15D | 5-15 | 15 | 134 | 2.0 | 79 | 505 | 125 | 0.50 | 1.25 | 1.25 | 216.68 |
| PLRE24D | 5-15 | 24 | 84 | 2.0 | 80 | 500 | 125 | 0.50 | 1.00 | 1.25 | 216.68 |
| PLRE28D | 5-15 | 28 | 72 | 2.0 | 80 | 500 | 125 | 0.50 | 1.00 | 1.00 | 216.68 |
| PLRE48D | 5-15 | 48 | 42 | 2.0 | 80 | 500 | 300 | 0.50 | 1.00 | 1.00 | 216.68 |
| PLRF5D | 8-24 | 5 | 500 | 2.5 | 78 | 400 | 100 | 0.75 | 1.75 | 2.00 | 216.68 |
| PLRF9D | 8-24 | 9 | 278 | 2.5 | 78 | 400 | 125 | 0.50 | 1.50 | 1.50 | 216.68 |
| PLRF12D | 8-24 | 12 | 208 | 2.5 | 79 | 395 | 125 | 0.50 | 1.25 | 1.25 | 216.68 |
| PLRF15D | 8-24 | 15 | 167 | 2.5 | 79 | 395 | 125 | 0.50 | 1.25 | 1.25 | 216.68 |
| PLRF24D | 8-24 | 24 | 104 | 2.5 | 80 | 390 | 125 | 0.50 | 1.00 | 1.25 | 216.68 |
| PLRF28D | 8-24 | 28 | 89 | 2.5 | 80 | 390 | 125 | 0.50 | 1.00 | 1.00 | 216.68 |
| PLRF48D | 8-24 | 48 | 52 | 2.5 | 80 | 390 | 250 | 0.50 | 1.00 | 1.00 | 216.68 |
| PLRA5D | 18-36 | 5 | 500 | 2.5 | 76 | 245 | 100 | 0.75 | 2.00 | 1.00 | 216.68 |
| PLRA9D | 18-36 | 9 | 278 | 2.5 | 76 | 245 | 100 | 0.50 | 2.00 | 0.50 | 216.68 |
| PLRA12D | 18-36 | 12 | 208 | 2.5 | 77 | 240 | 100 | 0.50 | 2.00 | 0.50 | 216.68 |
| PLRA15D | 18-36 | 15 | 167 | 2.5 | 79 | 235 | 100 | 0.50 | 1.50 | 0.50 | 216.68 |
| PLRA24D | 18-36 | 24 | 104 | 2.5 | 80 | 230 | 100 | 0.50 | 1.50 | 0.50 | 216.68 |
| PLRA28D | 18-36 | 28 | 89 | 2.5 | 80 | 230 | 100 | 0.50 | 1.50 | 0.50 | 216.68 |
| PLRA48D | 18-36 | 48 | 52 | 2.5 | 80 | 230 | 250 | 0.50 | 1.00 | 0.50 | 216.68 |
| PLRB5D | 36-60 | 5 | 500 | 2.5 | 74 | 140 | 100 | 0.75 | 1.75 | 0.50 | 248.78 |
| PLRB9D | 36-60 | 9 | 278 | 2.5 | 74 | 140 | 100 | 0.50 | 1.50 | 0.50 | 248.78 |
| PLRB12D | 36-60 | 12 | 208 | 2.5 | 74 | 140 | 100 | 0.50 | 1.00 | 0.25 | 248.78 |
| PLRB15D | 36-60 | 15 | 167 | 2.5 | 76 | 135 | 100 | 0.50 | 1.00 | 0.25 | 248.78 |
| PLRB24D | 36-60 | 24 | 104 | 2.5 | 76 | 135 | 100 | 0.50 | 0.75 | 0.25 | 248.78 |
| PLRB28D | 36-60 | 28 | 89 | 2.5 | 76 | 135 | 100 | 0.50 | 0.75 | 0.25 | 248.78 |
| PLRB48D | 36-60 | 48 | 52 | 2.5 | 76 | 135 | 200 | 0.50 | 0.75 | 0.25 | 248.78 |
| PLRC5D | 18-60 | 5 | 500 | 2.5 | 75 | 170 | 100 | 0.75 | 2.00 | 1.50 | 264.83 |
| PLRC9D | 18-60 | 9 | 278 | 2.5 | 75 | 170 | 100 | 0.50 | 1.50 | 1.00 | 264.83 |
| PLRC12D | 18-60 | 12 | 208 | 2.5 | 75 | 170 | 100 | 0.50 | 1.00 | 0.75 | 264.83 |
| PLRC15D | 18-60 | 15 | 167 | 2.5 | 77 | 165 | 100 | 0.50 | 1.00 | 0.75 | 264.83 |
| PLRC24D | 18-60 | 24 | 104 | 2.5 | 78 | 165 | 100 | 0.50 | 0.75 | 0.75 | 264.83 |
| PLRC28D | 18-60 | 28 | 89 | 2.5 | 78 | 165 | 100 | 0.50 | 0.75 | 0.75 | 264.83 |
| PLRC48D | 18-60 | 48 | 52 | 2.5 | 78 | 165 | 225 | 0.50 | 0.75 | 0.75 | 264.83 |



No Heat Sink or Electrical Derating Required

- OPTIONS AVAILABLE**
- Expanded operating temp. (-55°C to +85°C)
 - Stabilization Bake (125°C ambient)
 - Temperature Cycle (-55°C to +125°C) in 100% power, full power burn 125°C case temp)

Low Profile 0.3" Height

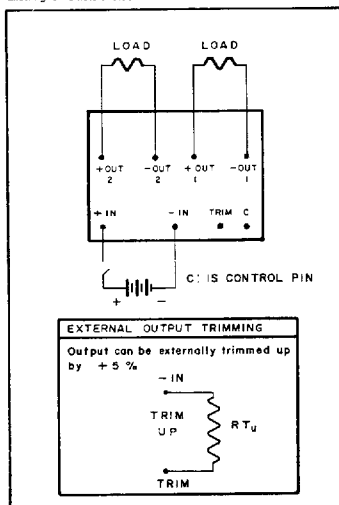
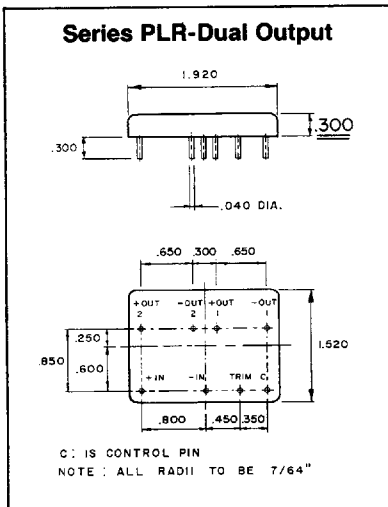
*Measurements taken with input voltage set at mid value.

‡ 10% minimum load required.

Ordering Instructions:

No minimum. Net 30 days F.O.B. Mt. Vernon, New York.

Each unit is supplied with an external control pin. This "C" pin, when connected to the negative (-) input, will disable the unit, allowing for remote shutdown.



Typical Weight: 40 Grams

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