

P25 Series

25W DC-DC CONVERTER



FEATURES 5V, 12V, 24V, 48V, 96V Inputs / Single, Dual Outputs

- High Efficiency
- Encapsulated Small / Compact Size
- Wide 2:1 Input Range
- 300kHz Fixed Frequency
- Input / Output Isolation
- Surface Mounting Technology
- Current Mode Control
- Output Low Ripple / Noise
- Low Start up Current
- Remote On/Off Control (CNT)
- Output Voltage Adjustment (TRM)
- Over Voltage Protection (OVP)
- 3 Year Warranty

ELECTRICAL SPECIFICATIONS

Input	• Input Range	DC 5V(4.5 - 7.2), 12V(8 - 16.5), 24V(18 - 32), 48V(32 - 63), 96V(70 - 140)
	• Efficiency	73 - 90% Typ.
	• Remote On/Off Control	TTL Compatible <ul style="list-style-type: none"> On : 0 to 1.2 Vdc or Short to -Vin Off : 2.4 to 5.5 Vdc or Open

Output	• Output Voltages	3.3V, 5V, 12V, 15V, ±5V, ±12V, ±15V
	• Output Voltage Tolerance	±2.0% (Single and Uncomplementary Dual), ±3.0% (Complementary Dual)
	• Line Regulation	±0.5% Max.
	• Load Regulation	±1.0% Max. (Single), ±2.5% Max. (Dual : Minimum Load 10%)
	• Ripple and Noise	1% of Vout (Bandwidth : 20MHz)

Protection Circuit	• Over Current Protection	Work Over 105% of Rating (Current Limited Output) (NOTE 1)
	• Over Voltage Protection	Work at 115 - 140% of Rating

Electrically Isolated	• Isolation	Input-Output, Input-Case, Output-Case / DC500V, 100MΩ
	• High Pot	Input-Output, Input-Case, Output-Case / AC500V, 1Min.

ENVIRONMENTAL

• Operating Temperature Range	-20°C ~ 71°C
• Option, See NOTE 2	-40°C ~ 85°C
• Operating Humidity (Non-Condensing)	20% ~ 90%RH
• Storage Temperature Range	-40°C ~ 105°C
• Storage Humidity (Non-Condensing)	10% ~ 95%RH
• Cooling Method	Convection
• MTBF (MIL-HDBK-217F)	4.7 x 10 ⁵ hrs
• Safety (Single Output)	CE_LVD (EN 60950) through TÜV (Except 96V Input)

NOTE 1. Long term continuous operation into a short circuit will compromise the reliability of the unit.
 2. As a factory added option, the all model can be operated from -40°C to 85°C, the suffix 'M' should be added to the model number when ordering. ex) PS25-24-5M

ORDERING INFORMATION

Input	Output1	Output2	Maximum Power	Ripple&Noise Max.	Efficiency Typ.	Model Number
4.5 - 9V	3.3V@3.20A		10.56W	75mVp-p	73%	PS25-5-3R3
4.5 - 9V	5V@3.20A		16.00W	75mVp-p	75%	PS25-5-5
4.5 - 9V	12V@1.70A		20.40W	120mVp-p	77%	PS25-5-12
4.5 - 9V	15V@1.40A		21.00W	150mVp-p	77%	PS25-5-15
4.5 - 9V	+5V@1.60A	-5V@1.60A	16.00W	100/100mVp-p	75%	PD25-5-55
4.5 - 9V	+12V@0.85A	-12V@0.85A	20.40W	120/120mVp-p	74%	PD25-5-1212
4.5 - 9V	+15V@0.70A	-15V@0.70A	21.00W	150/150mVp-p	74%	PD25-5-1515
9 - 18V	3.3V@4.00A		13.20W	75mVp-p	83%	PS25-12-3R3
9 - 18V	5V@4.00A		20.00W	75mVp-p	85%	PS25-12-5
9 - 18V	12V@2.10A		25.20W	120mVp-p	89%	PS25-12-12
9 - 18V	15V@1.70A		25.50W	150mVp-p	89%	PS25-12-15
9 - 18V	+5V@2.00A	-5V@2.00A	20.00W	100/100mVp-p	80%	PD25-12-55
9 - 18V	+12V@1.05A	-12V@1.05A	25.20W	120/120mVp-p	83%	PD25-12-1212
9 - 18V	+15V@0.85A	-15V@0.85A	25.50W	150/150mVp-p	84%	PD25-12-1515
18 - 36V	3.3V@4.00A		13.20W	75mVp-p	83%	PS25-24-3R3
18 - 36V	5V@4.00A		20.00W	75mVp-p	85%	PS25-24-5
18 - 36V	12V@2.10A		25.20W	120mVp-p	89%	PS25-24-12
18 - 36V	15V@1.70A		25.50W	150mVp-p	90%	PS25-24-15
18 - 36V	+5V@2.00A	-5V@2.00A	20.00W	100/100mVp-p	82%	PD25-24-55
18 - 36V	+12V@1.05A	-12V@1.05A	25.20W	120/120mVp-p	86%	PD25-24-1212
18 - 36V	+15V@0.85A	-15V@0.85A	25.50W	150/150mVp-p	86%	PD25-24-1515
36 - 72V	3.3V@4.00A		13.20W	75mVp-p	83%	PS25-48-3R3
36 - 72V	5V@4.00A		20.00W	75mVp-p	85%	PS25-48-5
36 - 72V	12V@2.10A		25.20W	120mVp-p	90%	PS25-48-12
36 - 72V	15V@1.70A		25.50W	150mVp-p	90%	PS25-48-15
36 - 72V	+5V@2.00A	-5V@2.00A	20.00W	100/100mVp-p	82%	PD25-48-55
36 - 72V	+12V@1.05A	-12V@1.05A	25.20W	120/120mVp-p	86%	PD25-48-1212
36 - 72V	+15V@0.85A	-15V@0.85A	25.50W	150/150mVp-p	86%	PD25-48-1515
70 - 140V	3.3V@4.00A		13.20W	75mVp-p	82%	PS25-96-3R3
70 - 140V	5V@4.00A		20.00W	75mVp-p	84%	PS25-96-5
70 - 140V	12V@2.10A		25.20W	120mVp-p	88%	PS25-96-12
70 - 140V	15V@1.70A		25.50W	150mVp-p	89%	PS25-96-15
70 - 140V	+5V@2.00A	-5V@2.00A	20.00W	100/100mVp-p	81%	PD25-96-55
70 - 140V	+12V@1.05A	-12V@1.05A	25.20W	120/120mVp-p	85%	PD25-96-1212
70 - 140V	+15V@0.85A	-15V@0.85A	25.50W	150/150mVp-p	85%	PD25-96-1515

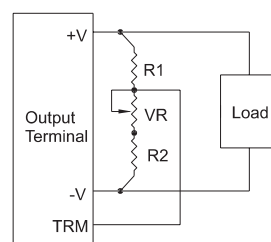
PIN ASSIGNMENTS

Single Output	Dual Output
1. +Vin	1. +Vin
2. - Vin	2. - Vin
3. CNT	3. CNT
4. +Vout	4. +Vout
5. No Pin	5. COM
6. - Vout	6. - Vout
7. TRM	7. TRM

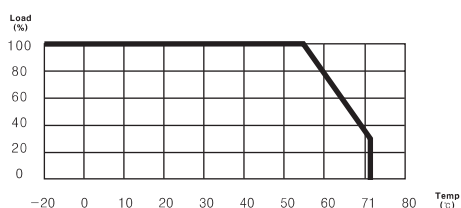
EXTERNAL PARTS

Model	Output Voltage	VR	R1	R2
PS 25	5V	1kΩ	1kΩ	680Ω
	12V	1kΩ	3.9kΩ	680Ω
	15V	1kΩ	5.6kΩ	750Ω
PD 25	±5V (10V)	1kΩ	3.3kΩ	680Ω
	±12V (24V)	5kΩ	9.0kΩ	820Ω
	±15V (30V)	5kΩ	20.0kΩ	910Ω

TRIM METHOD



DERATING CURVE



DIMENSIONS

