

TDD15 SERIES

DC-DC CONVERTER 12 ~ 15W



TDD15 - 03 S 2

WATTAGE

03 : 3.3V OUT

05 : 5V OUT

12 : 12V OUT

15 : 15V OUT

2: 18~36V IN
3: 35~75V IN

S : SINGLE OUTPUT

D : DUAL OUTPUT

MODEL LIST

MODEL NO.	INPUT VOLTAGE	OUTPUT WATTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	EFF. (TYP.)	EFF. (MIN.)	CASE
Single Output Models							
TDD15 - 03S2	18~36 VDC	12 WATTS	+3.3 VDC	3600 mA	79%	77%	TA
TDD15 - 05S2	18~36 VDC	15 WATTS	+ 5 VDC	3000 mA	81%	79%	TA
TDD15 - 12S2	18~36 VDC	15 WATTS	+ 12 VDC	1250 mA	82%	80%	TA
TDD15 - 15S2	18~36 VDC	15 WATTS	+ 15 VDC	1000 mA	85%	83%	TA
TDD15 - 03S3	35~75 VDC	12 WATTS	+3.3 VDC	3600 mA	80%	78%	TA
TDD15 - 05S3	35~75 VDC	15 WATTS	+ 5 VDC	3000 mA	82%	80%	TA
TDD15 - 12S3	35~75 VDC	15 WATTS	+ 12 VDC	1250 mA	86%	84%	TA
TDD15 - 15S3	35~75 VDC	15 WATTS	+ 15 VDC	1000 mA	87%	85%	TA
Dual Output Models							
TDD15 - 12D2	18~36 VDC	15 WATTS	± 12 VDC	± 630 mA		81%	TA
TDD15 - 15D2	18~36 VDC	15 WATTS	± 15 VDC	± 500 mA		82%	TA
TDD15 - 12D3	35~75 VDC	15 WATTS	± 12 VDC	± 630 mA		82%	TA
TDD15 - 15D3	35~75 VDC	15 WATTS	± 15 VDC	± 500 mA		83%	TA

FEATURES

- * LOW COST
- * 2:1 WIDE INPUT RANGE
- * I/O ISOLATION
- * INPUT Pi FILTER
- * SHORT CIRCUIT PROTECTION
- * HIGH PERFORMANCE
- * 2 YEARS WARRANTY

DESCRIPTION

THE TDD15 SERIES ARE 12 AND 15 WATTS SINGLE & DUAL OUTPUT DC/DC CONVERTER, 2:1 WIDE INPUT RANGE, I/O ISOLATION, GOOD EFFICIENCY WITH EXCELLENT LINE / LOAD REGULATION WITH SHORT CIRCUIT PROTECT FEATURES. IT MAKES TDD15 SUITABLE TO POWER COMMERCIAL & INDUSTRIAL TYPES OF ELECTRONIC CIRCUITS AT VERY LOW COST. ALL TDD15 MODELS ARE PACKAGED IN 2" x 1" x 0.47" BLACK COATED METAL CASE WITH NON-CONDUCTIVE PLASTIC BASE PLATE CONFIGURATION, AND PCB MOUNTABLE DIRECTLY.



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SPECIFICATION

All Specifications Typical At Nominal Line, Full Load, 25°C Unless Otherwise Noticed

GENERAL SPECIFICATION

- * Switching frequency: 200KHz (typ.)
- * Isolation voltage: 1,500VDC
- * Isolation resistance: 100M Ω (min.)
- * Operating ambient temperature: -10 to +50°C
- * Storage temperature: -40 to +100°C
- * Max. Case temperature: 100°C
- * M.T.B.F.: 661,000Hrs at @ GF40, according to MIL-HDBK-217F
- * Cooling: Free air convection
- * Transient recovery time: 500 μ S, 25% load step change
- * Temperature coefficient: $\pm 0.02\%$ / °C
- * Dimension: 50.8 x 25.4 x 12mm

INPUT SPECIFICATIONS

- * Input voltage range : 18 ~ 36VDC for 24V
35 ~ 75VDC for 48V
- * Input filter: Pi type
- * No load input current: 25mA for 24V in
15mA for 48V in
- * Max. Input voltage: 40VDC for 24V in
78VDC for 48V in

OUTPUT SPECIFICATIONS

- * Output voltage accuracy: $\pm 2\%$ at V_{o_nom}
- * Minimum load: No load for single output models
 $\pm 16\%$ at V_{o_nom} for dual output models
- * Line regulation: $\pm 1\%$ at V_{o_nom}
- * Load regulation: $\pm 2\%$ at V_{o_nom} for single output models
 $\pm 5\%$ at V_{o_nom} for dual output models
- * Ripple & noise: 150mV (max.) for 3Vout & 5Vout
 $\pm 10\%$ for 12Vout & 15Vout
- * Efficiency: Up to 87%, see model list
- * Derating: See table 1
- * Case material: Metal

CONTROL AND PROTECTION

- * Input reversed: Shunt diode use external fuse
- * Output short circuit: Continuous

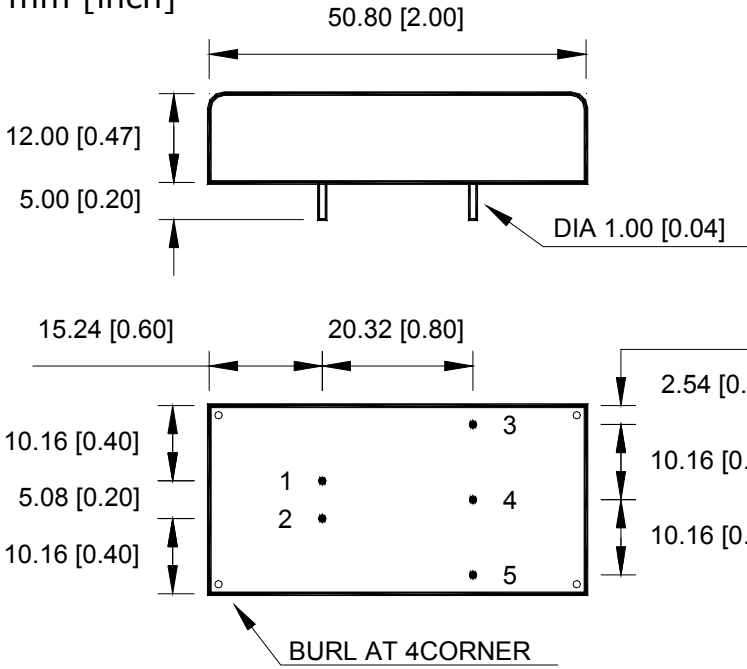


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MECHANISM & PIN CONFIGURATION

mm [inch]



PHYSICAL CHARACTERISTICS

CASE SIZE	50.8 x 25.4 x 12mm 2 x 1 x 0.47inches
CASE MATERIAL	Metal
WEIGHT	33 g (typ.)

PIN ASSIGMENT

PIN NO.	1	2	3	4	5
SINGLE	Vi+	Vi-	Vo+	NO PIN	Vo-
DUAL	Vi+	Vi-	Vo+	com	Vo-

Derating:

[TABLE 1]

