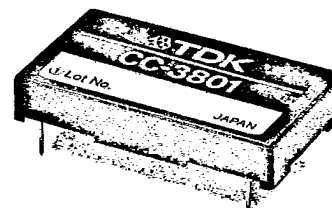


T.57-11

CC SERIES DC TO DC CONVERTERS

MTTF OF 2 MILLION HOURS

The CC series developed to provide -5, -12, -15, +12, +15Vdc voltage conversion from 5Vdc lines. Along with selected components and materials, TDK's design technology created highly reliable DC to DC converters. The CC series is the best for equipment which requires a high reliability.



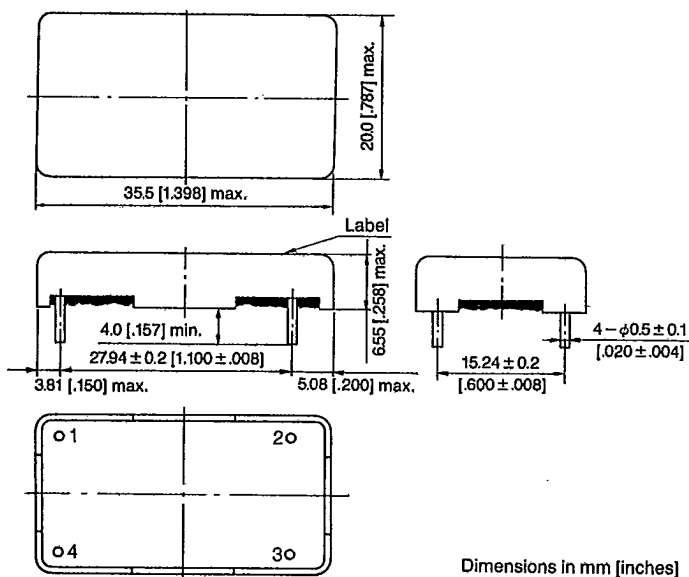
FEATURES

- High reliability: Design of parts and configuration for a failure rate of 300 fit.
- Flammability: Case, potting material and PCB are UL recognized materials.
- Configuration: Basic design of 28-pin molded IC package.
- Output voltage: $\pm 5\%$ voltage stability with respect to inputs, load and temperature.
- Ripple and noise: Minimized by input and output filters (with external capacitors).
- Reliability test: Based on MIL-STD-883A

TEMPERATURE AND HUMIDITY RANGES

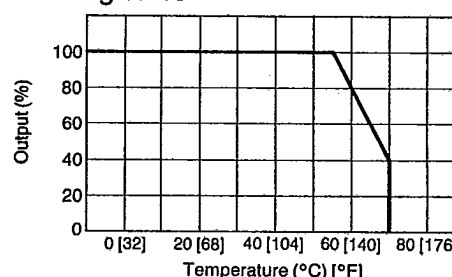
Operating temperature	0 to 55°C [32 to 131°F]
Storage temperature	-20 to +85°C [-4 to +185°F]
Humidity	95% R.H. max. (Maximum wet bulb temperature: 38°C [100.4°F])

SHAPES AND DIMENSIONS

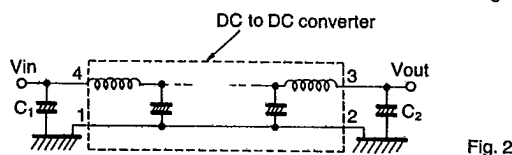
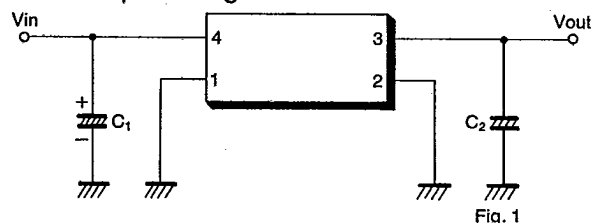


- Capacitor C_1 , C_2 are requested 33 μ F for 5V (V_{out}) models and 22 μ F for 12V, 15V (V_{out}) models. See Fig. 1 and Fig. 2 for filter construction.
- The free selection of the capacitance between 1 μ F and 100 μ F with the load current.
- Select a dielectric strength and polarity for C_1 , C_2 and tally with the converter.
- Terminal pins 1 and 2 are internally common but by using the input and output pins independently, noise voltage can be reduced effectively.

Derating curve



Terminal pin configuration



Terminal pin No.	Part No.	
	CC-3801 CC-3802	CC-3851 CC-3852 CC-3853
1	Common in	Common in
2	Common out	Common out
3	-Vout	+Vout
4	+Vin	+Vin

TDK DC to DC Converters, DC to AC Inverters

250mW

T D K CORP

40E D ■ 8821248 0004992 T ■ TDKA

ELECTRICAL CHARACTERISTICS

T-57-11

Part No.	Input voltage (V)	Output* ¹ voltage (V)	Output current (mA)	Ripple and noise voltage* ²		Output voltage stability depending on:			Efficiency* ³ (%) typ.	weight (g)
				At max. input (mVp-p) max.	At max. output (mVp-p) max.	Input (%) typ.	Load (%) typ.	Temp. (%/°C) typ.		
CC-3801	+5 ± 5%	+12 ± 5%	0 to 21	480	480	0.5	1.2	0.06	70	7.2
CC-3802		+15 ± 5%	0 to 17	600	600		1.3	0.06		
CC-3851		-5 ± 5%	0 to 50	100	100		1.2	0.08	50	
CC-3852		-12 ± 5%	0 to 21	480	480		0.6	0.1	60	
CC-3853		-15 ± 5%	0 to 17	600	600		0.7	0.1		

*¹ Tolerance of output voltage includes fluctuations in the input (± 5%), load (0 to 100%) and temperature (0 to 55°C [32 to 131°F]). Ripple and noise voltage are included (CC-3851 excluded).

*² Test circuit is shown in Fig. 1 (C₁, C₂: 33μF for CC-3851, 22μF for CC-3801, -3802, -3852, -3853). At maximum load and with a 30MHz bandwidth. Consult us for small ripple application (less than 100mV).

*³ Maximum load at 5V input.