



POWER MATE TECHNOLOGY CO., LTD.

FDC05 SERIES

**SINGLE AND DUAL OUTPUT (FDC05 & FDC05-W)
5 WATTS DC/DC CONVERTERS**



- 2 : 1 AND 4 : 1 INPUT RANGE
- EFFICIENCY UP TO 80%
- SIX-SIDED SHIELD
- 2 x 1 x 0.4 INCHES
- OVER CURRENT PROTECTION

ELECTRICAL SPECIFICATIONS

All specifications are typical at nominal input, full load, and 25°C unless otherwise noted

INPUT SPECIFICATIONS

Input voltage range	12V nominal.....	9 to 18V
	24V nominal.....	18 to 36V
	48V nominal.....	36 to 75V
"W" Series	24V nominal.....	9 to 36V
	48V nominal.....	18 to 75V
Input filter.....		Pi Type

OUTPUT SPECIFICATIONS

Output voltage accuracy ,.....	±2%
voltage balance,dual output.....	±1%
Ripple and noise, 20MHz BW.....	75mVP-P
Line regulation, HL-LL.....	±0.2%
Line regulation, FL to 1/4 FL.....	±0.2%(Single), ±1%(Dual)
Efficiency.....	SEE TABLE
Temperature coefficient.....	±0.02%/°C
Short circuit protection.....	Indefinite
Transient response recovery time, Single, 25% load step change.....	200µ sec
Dual, FL to 1/2 FL±1% error band	200µ sec

GENERAL SPECIFICATIONS

Switching frequency.....	300kHz
"W" series K.....	200kHz
Isolation voltage.....	1600VDC
Isolation resistance.....	10 ⁹ Ohms

ENVIRONMENTAL SPECIFICATIONS (REFERENCE)

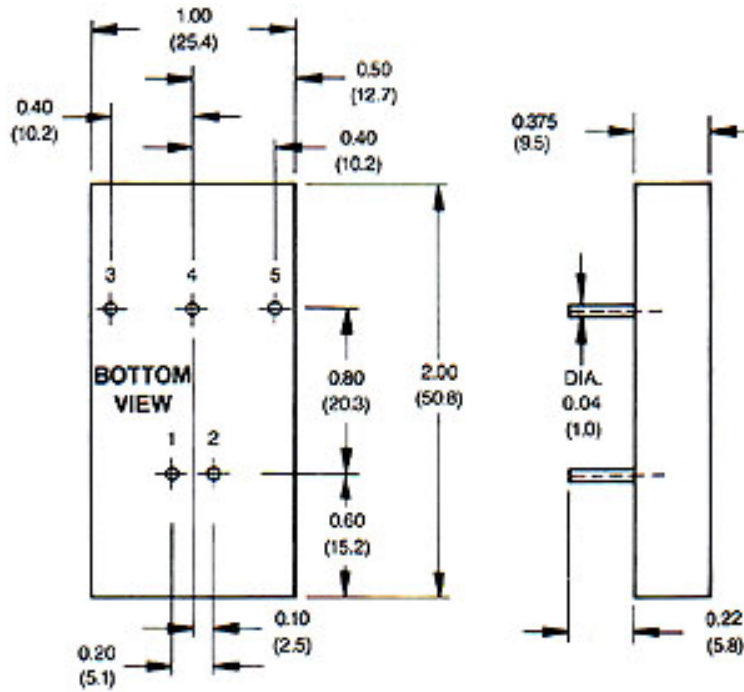
Operating temperature range.....	-25°C to +71°C
"M1" (Option)	-40°C to +85°C
"M2" (Option) "W" Series.....	-40°C to +71°C
Storage temperature range.....	-55°C to +105°C
Case temperature.....	100°C max.
Cooling.....	Free-air convection
EMI/RFI.....	Six-sided continuous
MTBF.....	1.186 x 10 ⁶ Hour (MIL-HDBK-217F TA=25°C Full Load)

PHYSICAL SPECIFICATIONS

Case Material.....	Nickel-Coated Copper with Non-Conductive Base
Dimensions.....	2.0 x 1.0 x 0.4 Inches (50.8 x 25.4 x 10.2mm)

MODEL NUMBER	OUTPUT VOLTAGE	OUTPUT CURRENT	% typ. EFF	CAPACITOR LOAD MAX.
FDC05-12S33	3.3VDC	1000mA	71	3700uF
FDC05-12S05	5VDC	1000mA	73	1700uF
FDC05-12S12	12VDC	470mA	80	290uF
FDC05-12S15	15VDC	400mA	80	188uF
FDC05-12D05	+/-5VDC	+/-500mA	74	+/-850uF
FDC05-12D12	+/-12VDC	+/-230mA	80	+/-140uF
FDC05-12D15	+/-15VDC	+/-190mA	80	+/-47uF
FDC05-24S33(W)	3.3VDC	1000mA	72(W=72)	3700uF
FDC05-24S05(W)	5VDC	1000mA	74(W=75)	1700uF
FDC05-24S12(W)	12VDC	470mA	82(W=80)	290uF
FDC05-24S15(W)	15VDC	400mA	82(W=80)	188uF
FDC05-24D05(W)	+/-5VDC	+/-500mA	74(W=74)	+/-850uF
FDC05-24D12(W)	+/-12VDC	+/-230mA	82(W=80)	+/-140uF
FDC05-24D15(W)	+/-15VDC	+/-190mA	82(W=80)	+/-47uF
FDC05-48S33(W)	3.3VDC	1000mA	73(W=73)	3700uF
FDC05-48S05(W)	5VDC	1000mA	75(W=74)	1700uF
FDC05-48S12(W)	12VDC	470mA	81(W=81)	290uF
FDC05-48S15(W)	15VDC	400mA	81(W=81)	188uF

FDC05-48D05(W)	+/-5VDC	+/-500mA	74(W=74)	+/-850uF
FDC05-48D12(W)	+/-12VDC	+/-230mA	81(W=78)	+/-140uF
FDC05-48D15(W)	+/-15VDC	+/-190mA	81(W=79)	+/-47uF



ALL DIMENSIONS IN INCHES (mm)
PIN PITCH TOLERANCE +/-0.5mm

Pin Connections

Pin#	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	+Vout	+Vout
4	No Pin	Common
5	-Vout	-Vout

OPERATING TEMPERATURE LIMITS AND POWER RANGE

