



POWER MATE TECHNOLOGY CO., LTD.

FKC05 SERIES

**SINGLE AND DUAL OUTPUT
5 WATTS DC/DC CONVERTERS**

(FKC05 & FKC05-W)



- 5 WATTS MINIATURE PACKAGE
- 2 : 1 & 4 : 1 INPUT RANGE
- EFFICIENCY UP TO 84%
- FIVE-SIDED SHIELD
- NO OTHER COMPONENTS REQUIRED
- OVER CURRENT PROTECTION

ELECTRICAL SPECIFICATIONS

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

INPUT SPECIFICATIONS

2 : 1 Input Voltage,	12V nominal.....	9 to 18V
	24V nominal.....	18 to 36V
	48V nominal.....	36 to 75V
4 : 1 Input Voltage("W")(Option)	24V nominal.....	9 to 36V
	28V nominal.....	18 to 75V
Input filter.....		Pi Type

OUTPUT SPECIFICATIONS

Output voltage accuracy	±2%
Voltage balance,dual outputs	±2%
Ripple and noise, 20MHz BW.....	50mV p-p max.
Line regulation.....	±0.2%
Load regulation,FL-1/4FL,single output.....	±0.2%
	dual output.....
Temperature coefficient.....	±0.02%/°C
Over current protection.....	Continuous

GENERAL SPECIFICATIONS

Switching frequency.....300kHz, typ.
 Isolation voltage.....1600VDC
 Isolation resistance.....10⁹Ohms,min.
 Isolation capacitance.....300pF max.

ENVIRONMENTAL SPECIFICATIONS (REFERENCE)

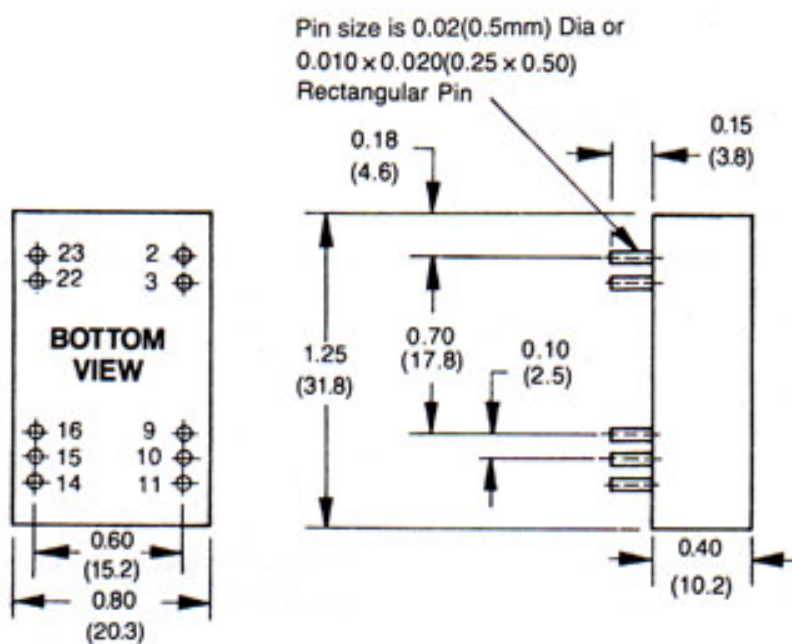
Operating temperature range.....-25°C to +71°C
 "M1"(Option).....-40°C to +85°C
 "M2"(Option), Wseries.....-40°C to +71°C
 Storage temperature range.....-55°C to +105°C
 Case temperature.....100°C max.
 Cooling.....Free-air convection
 EMI/RFI.....Five-sided continuous shield
 MTBF.....1.131 x 10⁶ Hours (MIL-HDBK-217F TA=25°C Full Load)

PHYSICAL SPECIFICATIONS

Case Material.....Nickel-Coated Copper with Non-Conductive Base
 Dimensions.....1.25 x 0.8 x 0.4 Inches (31.8 x 20.3 x 10.2mm)

MODEL NUMBER	OUTPUT VOLTAGE	OUTPUT CURRENT	% typ. EFF	CAPACITOR LOAD MAX.
FKC05-12S33	3.3VDC	1000mA	76	2200uF
FKC05-12S05	5VDC	1000mA	78	1000uF
FKC05-12S12	12VDC	470mA	82	220uF
FKC05-12S15	15VDC	400mA	81	150uF
FKC05-12D05	+/-5VDC	+/-500mA	78	+/-680UF
FKC05-12D12	+/-12VDC	+/-230mA	81	+/-100uF
FKC05-12D15	+/-15VDC	+/-190mA	81	+/-68uF
FKC05-24S33(W)	3.3VDC	1000mA	75(W=74)	2200uF
FKC05-24S05(W)	5VDC	1000mA	77(W=75)	1000uF
FKC05-24S12(W)	12VDC	470mA	82(W=80)	220uF
FKC05-24S15(W)	15VDC	400mA	82(W=80)	150uF
FKC05-24D05(W)	+/-5VDC	+/-500mA	80(W=78)	+/-680UF
FKC05-24D12(W)	+/-12VDC	+/-230mA	84(W=82)	+/-100uF
FKC05-24D15(W)	+/-15VDC	+/-190mA	82(W=80)	+/-68uF
FKC05-48S33(W)	3.3VDC	1000mA	74(W=73)	2200uF
FKC05-48S05(W)	5VDC	1000mA	79(W=77)	1000uF
FKC05-48S12(W)	12VDC	470mA	82(W=80)	220uF
FKC05-48S15(W)	15VDC	400mA	81(W=79)	150uF

FKC05-48D05(W)	+/-5VDC	+/-500mA	78(W=76)	+/-680UF
FKC05-48D12(W)	+/-12VDC	+/-230mA	82(W=80)	+/-100uF
FKC05-48D15(W)	+/-15VDC	+/-190mA	81(W=79)	+/-68uF

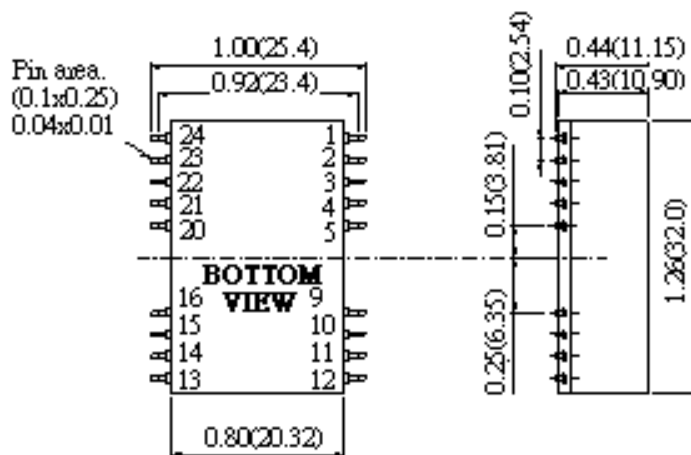


ALL DIMENSIONS IN INCHES (mm)
PIN PITCH TOLERANCE +/-0.35mm

Pin Connections

Pin#	Single	Dual
2	-Vin	-Vin
3	-Vin	-Vin
9	NC	Common
10	NC("W" NO Pin)	NC("W" NO Pin)
11	NC	-Vout
14	+Vout	+Vout
15	NC("W" NO Pin)	NC("W" NO Pin)
16	-Vout	Common
22	+Vin	+Vin
23	+Vin	+Vin

*NC:No Connection



ALL DIMENSIONS IN INCHES(mm)
PIN PITCH TOLERANCE +/-0.014(0.35)

PIN CONNECTIONS

PIN#	Single	Dual
1	NC	NC
2	-Vin	-Vin
3	-Vin	-Vin
4	NC	NC
5	NC	NC
9	NC	Com
10	NC	NC
11	NC	-Vout
12	NC	NC
13	NC	NC
14	+Vout	+Vout
15	NC	NC
16	-Vout	Com
20	NC	NC
21	NC	NC
22	+Vin	+Vin

23	+Vin	+Vin
24	NC	NC

*NC:No Connection

OPERATING TEMPERATURE LIMITS AND OUTPUT POWER RANGE

