

J SERIES

Dual output

- Small size 0.75 cubic inch
- Unregulated
- 65 to 80% efficiency
- Power densities to 6 W/in³
- Six-sided metal case
- 20 kHz switching frequency



This series of DC/DC converters features a high power density solution for those applications where space is at a premium and tight regulation is not critical. With dimensions of only 1.0 x 2.0 x 0.380 inches, these DC/DC converters are designed for high component density circuit boards in card cages with 0.5 inch spacing. They are available as dual output models with output voltages of ± 15 VDC and ± 18 VDC. Efficiencies as high as 80% are attained by offering unregulated outputs. All models have

short term short-circuit protection with automatic restart upon removal of short circuit. The J series is housed in a six sided metal case. Isolation voltage is 500VDC minimum and derating is not required over the operating temperature range. All models are free air convection cooled.

SPECIFICATION

ALL SPECIFICATIONS ARE TYPICAL AT NOMINAL INPUT, FULL LOAD AND 25°C UNLESS OTHERWISE STATED

OUTPUT SPECIFICATIONS		
Load regulation	FL-1/4FL, J models	$\pm 6\%$, max.
Line regulation	Proportional to input	
Ripple and noise	20MHz BW	100mV pk-pk
Temperature coefficient	$\pm 0.2\%/^{\circ}\text{C}$, max.	
Short circuit protection	Output to common	10 sec., max.
INPUT SPECIFICATIONS		
Input voltage range	See table on facing page	
Input filter	Capacitor	

GENERAL SPECIFICATIONS	
Efficiency	See table
Isolation voltage	500VDC, min.
Isolation resistance	10^9 ohms, min.
Switching frequency	20kHz
EMI/RFI	Six-sided continuous metal case
Weight	31G (1.0 oz)
Case material	Black coated copper with non-conductive base
ENVIRONMENTAL SPECIFICATIONS	
Operating temperature range	- 25°C to 71°C
Derating	None
Storage temperature range	- 55°C to 85°C

5 to 6 Watt DC/DC converters

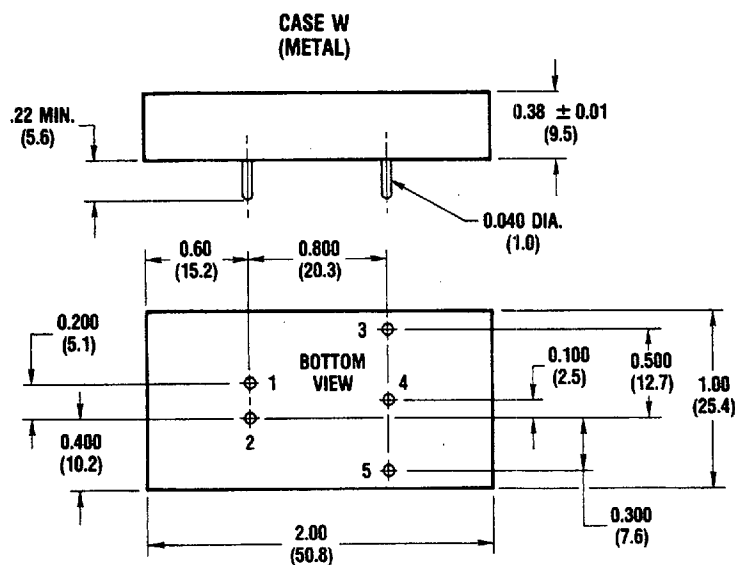
INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF	REGULATION		CASE	MODEL NUMBER
			NO LOAD	FULL LOAD		LINE	LOAD		
5VDC	±15VDC	±200mA	200mA	1600mA	75	±1%	±6.0%	W	J05D15/200W
5VDC	±18VDC	±165mA	180mA	1500mA	79	±1%	±6.0%	W	J05D18/165W

Notes

- 1 Maximum.
- 2 Measured from full load to 1/4 full load.

INPUT VOLTAGE RANGES	
NOMINAL INPUT	RANGE
5VDC	4.5 to 5.5V

PIN CONNECTIONS	
PIN NUMBER	DUAL OUTPUT
1	+ Input
2	- Input
3	+ Output
4	Common
5	- Output



ALL DIMENSIONS IN INCHES (mm)

Tolerance .xx = ±0.04
.xxx = ±0.005