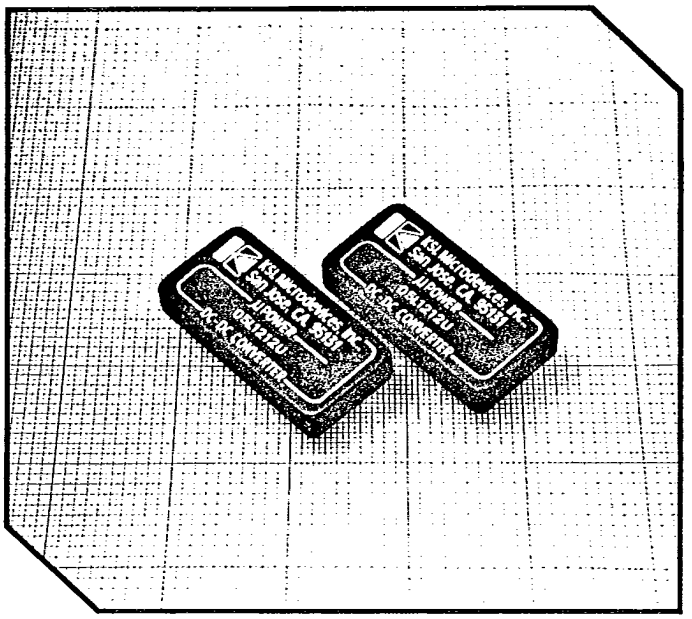
Series L μPOWER™ 4.5 Watts Miniature High Isolation Single/Dual DC-DC Converters

Features

- Surface mount technology
- Up to 4.5 watts output power
- High power density
- High efficiency
- Low profile package
- High input/output isolation
- Short circuit protection
- Low output ripple & noise
- Single or dual outputs
- High MTBF
- 100% burned-in and tested
- Metal case shielding
- Vacuum encapsulated potting



Specifications (Regulated Type)

- Input Voltage Range: ±10% at nominal
- Output Voltage Tolerance: ±1% at nominal
- Input Reflected Ripple: 1% of Vin max.
- Line Regulation: ±.05% for ±10% line change
- Load Regulation: .1% (10% to 100% load)
- Output Ripple & Noise: 50mV p-p
- Input/Output Isolation: 150MΩ2500VDC min.
- Short Circuit Protection: current limiting
- Efficiency: 60% @ nominal voltage
- Transient Response: Less than 10μsec.
- MTBF: 280,000 hours
- Operating Temperature: −25°C to +70°C
- Storage Temperature: −55°C to +70°C
- Temperature Coefficient: 100ppm/°C
- Burn-In: 70°C for 4 hours and tested
- Long Term Stability: 0.4%/khours

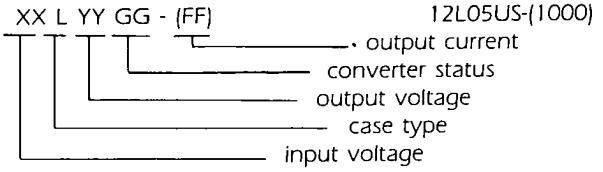
Special Options

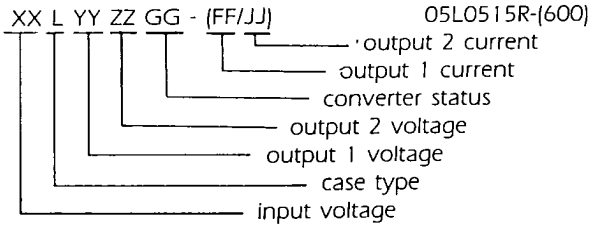
- Case: EMI/RF Continuous Shielding Package
  Six-sided enclosure grounded
- Stabilization Bake: MIL-STD-883B, method 1008.2
  24 hours at +125°C
- Burn-In: MIL-STD-883B, method 1015.4
  96 hours at +70°C case temperature
- Temperature Cycle: MIL-STD-883B, method 1010.5
  −55°C/+125°C 10 cycles minimum
- Thermal Shock: MIL-STD-883B, method 1011.4
  −55°C/5 minutes, +125°C/5 minutes

*Specifications subject to change without notice

Part Number — Custom Designs

KSL μPOWER converters are used in a wide variety of special custom design applications where alternate voltages, currents, pin-outs or multiple outputs are required.





Converter Status

U: Unregulated	S: Special specs
R: Regulated	J: Hi-Rel screened
C: Custom circuit	T: Triple outputs
P: Special pin-outs	Q: Quad outputs

Applications

- Instrumentation
- Video Processing Equipment
- Process Control
- Industrial Control Systems
- Analog and Digital Systems

KSL Microdevices, Inc., 2153-D O'Toole Ave., San Jose, CA 95131, (408) 922-0800 FAX (408) 922-0629

Selection Chart (Maximum Rating)

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE	LOAD CURRENT*	MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE	LOAD CURRENT*
05L05	+/-5V	+/- 5V	900 mA	05L0505	+/-5V	± 5V	±450 mA
05L09	+/-5V	+/- 9V	500 mA	05L0909	+/-5V	± 9V	±250 mA
05L12	+/-5V	+/-12V	380 mA	05L1212	+/-5V	±12V	±190 mA
05L15	+/-5V	+/-15V	300 mA	05L1515	+/-5V	±15V	±150 mA
05L24	+/-5V	+/-24V	180 mA	05L2424	+/-5V	±24V	± 90 mA
05L28	+/-5V	+/-28V	160 mA	05L2828	+/-5V	±28V	± 80 mA
12L05	+/-12V	+/- 5V	900 mA	12L0505	+/-12V	± 5V	±450 mA
12L09	+/-12V	+/- 9V	500 mA	12L0909	+/-12V	± 9V	±250 mA
12L12	+/-12V	+/-12V	380 mA	12L1212	+/-12V	±12V	±190 mA
12L15	+/-12V	+/-15V	300 mA	12L1515	+/-12V	±15V	±150 mA
12L24	+/-12V	+/-24V	180 mA	12L2424	+/-12V	±24V	± 90 mA
12L28	+/-12V	+/-28V	160 mA	12L2828	+/-12V	±28V	± 80 mA
15L05	+/-15V	+/- 5V	900 mA	15L0505	+/-15V	± 5V	±450 mA
15L09	+/-15V	+/- 9V	500 mA	15L0909	+/-15V	± 9V	±250 mA
15L12	+/-15V	+/-12V	380 mA	15L1212	+/-15V	±12V	±190 mA
15L15	+/-15V	+/-15V	300 mA	15L1515	+/-15V	±15V	±150 mA
15L24	+/-15V	+/-24V	180 mA	15L2424	+/-15V	±24V	± 90 mA
15L28	+/-15V	+/-28V	160 mA	15L2828	+/-15V	±28V	± 80 mA
24L05	+/-24V	+/- 5V	900 mA	24L0505	+/-24V	± 5V	±450 mA
24L09	+/-24V	+/- 9V	500 mA	24L0909	+/-24V	± 9V	±250 mA
24L12	+/-24V	+/-12V	380 mA	24L1212	+/-24V	±12V	±190 mA
24L15	+/-24V	+/-15V	300 mA	24L1515	+/-24V	±15V	±150 mA
24L24	+/-24V	+/-24V	180 mA	24L2424	+/-24V	±24V	± 90 mA
24L28	+/-24V	+/-28V	160 mA	24L2828	+/-24V	±28V	± 80 mA
48L05	+/-48V	+/- 5V	900 mA	48L0505	+/-48V	± 5V	±450 mA
48L09	+/-48V	+/- 9V	500 mA	48L0909	+/-48V	± 9V	±250 mA
48L12	+/-48V	+/-12V	380 mA	48L1212	+/-48V	±12V	±190 mA
48L15	+/-48V	+/-15V	300 mA	48L1515	+/-48V	±15V	±150 mA
48L24	+/-48V	+/-24V	180 mA	48L2424	+/-48V	±24V	± 90 mA
48L28	+/-48V	+/-28V	160 mA	48L2828	+/-48V	±28V	± 80 mA

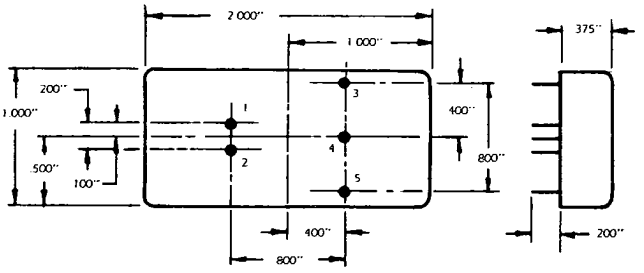
***Current must be specified.**

Package Dimensions

BOTTOM VIEW

PIN	DESIGNATION
1	+ INPUT
2	- INPUT
3	+ OUTPUT
4	COMMON
5	- OUTPUT

PINS: 0.04" x 0.20" long min.



Design Notes