

Series SH and SW **μ POWER™****12 to 60 Watts****Wide-Input Switching Mode DC-DC Converters****Features**

- Surface mount technology
- Up to 60 watts output power
- High power density
- Excellent efficiency
- Excellent regulation
- Low output ripple & noise
- Single and dual outputs
- High MTBF
- 100% burned-in and tested
- Metal case shielding
- Vacuum encapsulated potting

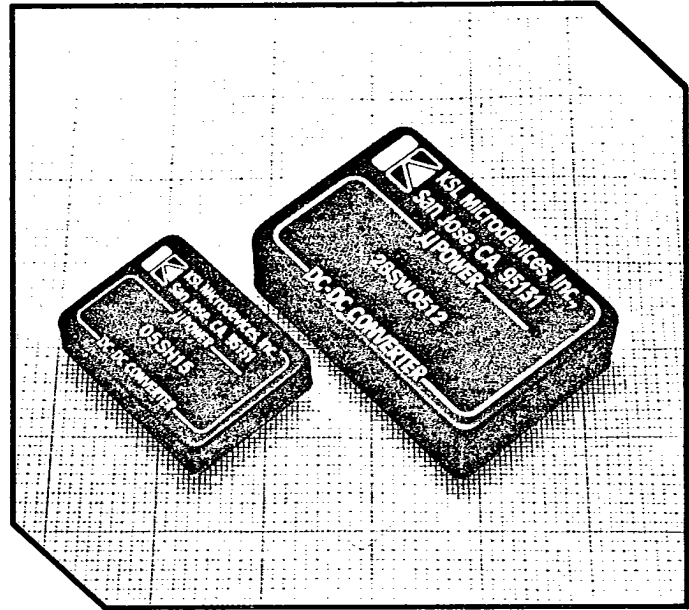
General Specifications

- Input Voltage Range: 10V to 40V
- Output Voltage Tolerance: $\pm 2\%$ at nominal
- Input Reflected Ripple: 1% of V_{in} max.
- Line Regulation: $\pm .05\%$ for $\pm 10\%$ line change
- Load Regulation: .15% (10% to 100% load)
- Output Ripple & Noise: 50mV p-p
- Efficiency: 80% @ nominal voltage
- Transient Response: Less than 10 μ sec.
- MTBF: 260,000 hours
- Operating Temperature: -25°C to $+70^{\circ}\text{C}$
- Storage Temperature: -55°C to $+70^{\circ}\text{C}$
- Temperature Coefficient: 100ppm/ $^{\circ}\text{C}$
- Burn-In: 70°C for 4 hours and tested
- Long Term Stability: 0.4%/khours

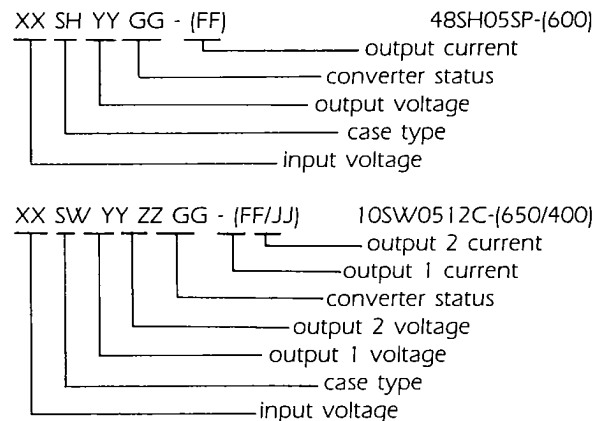
Special Options

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

*Specifications subject to change without notice

**Part Number — Custom Designs**

KSL μ POWER 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
R: Regulated

P: Special pin-outs
C: Custom circuit

Applications

- Battery Powered Equipment
- Telecommunications Systems
- Airborne & Shipboard Equipment
- Solar Systems
- Data Communications



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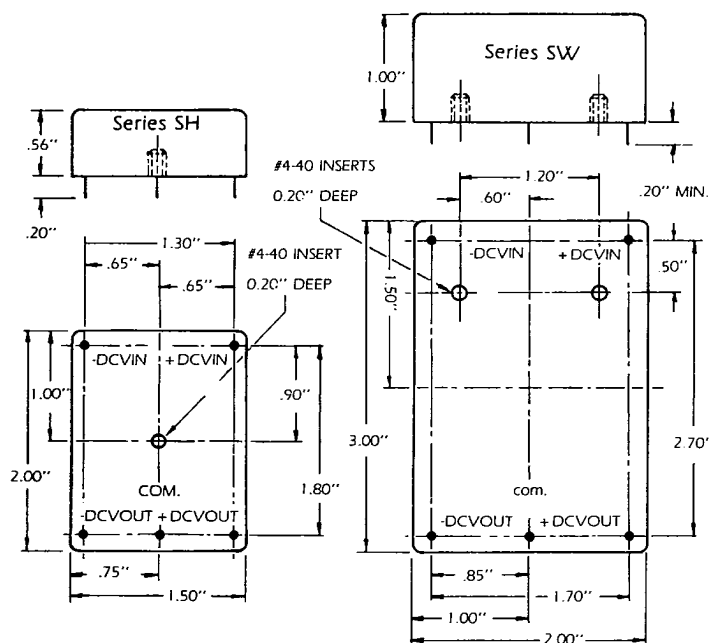
Selection Chart (Maximum Rating)

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE	LOAD CURRENT*	MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE	LOAD CURRENT*
10SH05	+/- 10V - 40V	+/- 5V	2000 mA	10SH15	+/- 10V - 40V	+/- 15V	1500 mA
10SH06	+/- 10V - 40V	+/- 6V	2000 mA	10SH18	+/- 10V - 40V	+/- 18V	1500 mA
10SH08	+/- 10V - 40V	+/- 8V	2000 mA	10SH20	+/- 10V - 40V	+/- 20V	1000 mA
10SH09	+/- 10V - 40V	+/- 9V	2000 mA	10SH24	+/- 10V - 40V	+/- 24V	1000 mA
10SH10	+/- 10V - 40V	+/- 10V	1500 mA	10SH28	+/- 10V - 40V	+/- 28V	1000 mA
10SH12	+/- 10V - 40V	+/- 12V	1500 mA	10SH30	+/- 10V - 40V	+/- 30V	1000 mA
10SW/05	+/- 10V - 40V	+/- 5V	3000 mA	10SW/0505	+/- 10V - 40V	+/- 5V	± 2300 mA
10SW/06	+/- 10V - 40V	+/- 6V	3000 mA	10SW/0606	+/- 10V - 40V	+/- 6V	± 2300 mA
10SW/08	+/- 10V - 40V	+/- 8V	2600 mA	10SW/0808	+/- 10V - 40V	+/- 8V	± 2000 mA
10SW/09	+/- 10V - 40V	+/- 9V	2600 mA	10SW/0909	+/- 10V - 40V	+/- 9V	± 2000 mA
10SW/10	+/- 10V - 40V	+/- 10V	2000 mA	10Sw1010	+/- 10V - 40V	+/- 10V	± 1800 mA
10SW/12	+/- 10V - 40V	+/- 12V	2000 mA	10SW/1212	+/- 10V - 40V	+/- 12V	± 1800 mA
10SW/15	+/- 10V - 40V	+/- 15V	3000 mA	10SW/1515	+/- 10V - 40V	+/- 15V	± 1500 mA
10SW/18	+/- 10V - 40V	+/- 18V	3000 mA	10SW/1818	+/- 10V - 40V	+/- 18V	± 1500 mA
10SW/20	+/- 10V - 40V	+/- 20V	2600 mA	10SW/2020	+/- 10V - 40V	+/- 20V	± 1300 mA
10SW/24	+/- 10V - 40V	+/- 24V	2600 mA	10SW/2424	+/- 10V - 40V	+/- 24V	± 1300 mA
10SW/28	+/- 10V - 40V	+/- 28V	2000 mA	10SW/2828	+/- 10V - 40V	+/- 28V	± 1000 mA
10SW/30	+/- 10V - 40V	+/- 30V	2000 mA	10SW/3030	+/- 10V - 40V	+/- 30V	± 1000 mA

***Current must be specified.**

Package Dimensions

BOTTOM VIEW



Design Notes

[illegible]