



Surface Mount

Low Profile

No Heatsink Required

10ms Start-up

Remote on/off

Belcore Compliance

**Worldwide Safety
Agency Approvals**

Overvoltage Protection

**24V or 48V Nominal
Inputs**

Lambda's new SM Series is the first family of surface mount DC-DC converters that is designed specifically for card level distributed power applications targeted at the Telecom and Computer markets.

Using 100% SMT technology in combination with our patented thermal management strategy, the SM Series offers a non-encapsulated solution reducing the weight restrictions required for pick and place operation with existing vacuum end effectors.

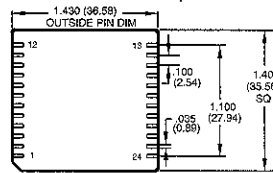
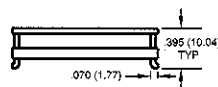
The SM Series is available in 56 models at power ranges from 5 to 30 watts with standard input and output voltage ranges.

Similar products

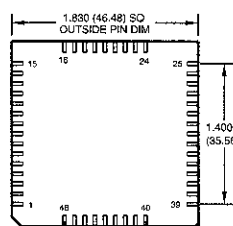
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PM	10-30W Through-hole converters	76
PP	Less Than 10W, 5V Input	74
RM	High Efficiency 90%@5V	80
FE	Front End for Distributed Power	66

DC Input	18-36VDC (24V nominal). 36-75VDC (48V nominal).
Efficiency	80% (Typical).
EMI	Level B VDE, FCC, Bellcore 1089 with an external filter.
Transient Response	After application of 0 to 25% of full load step in output current, output voltage will stay within 2% of preset value, recovering to within 1% in less than 1ms.
No Load Input Power	0.4W.
Output Voltage Accuracy ...	±1%.
Output Voltage Adj Range ..	±10% via TRM terminal.
Line Regulation	.2% on Singles. .4% on Dual +V to -V.
Load Regulation	Singles: 1% max of total output. DUALS: 1% max -V to +V. 2% max -V or +V to common. Triples: 1% max for main outputs. 5% on auxiliary channels. (10% main pre-load required).
Cross Regulation	3% of max on triples.
Ripple and Noise	Singles: 75mVpp on 3V & 5V. 100mVpp on 12V & 15V. DUALS: 100mVpp Triples: 120mVpp (max).
Start Up	Within 10mS after application of nominal input voltage.
Overshoot	No overshoot at turn on, turn off, power failure or removal of short circuit.
Short Circuit Protection	Continuous.
Cooling	Convection allows full output rating.
Operating Temperature Range	SM10: -40°C to 70°C. SM20: -40°C to 60°C. SM30: -40°C to 50°C.
Altitude	10,000 ft max operating. 45,000 ft max storage.
Storage Temperature	-55°C to +125°C.
Fungus Proofing	Units are inherently fungus inert.
Temperature Coefficient	±0.015% per °C.
Humidity	5% to 95% (non-condensing).
Isolation	500VAC, 700VDC, 10M @ 24VDC input. 900VAC, 1500VDC, 10M @ 48VDC input.
Thermal Cycling	1 hr @ -20°C ramped to 1 hr @ +20°C ramped to 1hr @ +100°C.
Vibration and Shock	2.5G RMS, 10Hz, random vibration, 1 hour per axis.
Remote On/Off	(Open) enables unit. (Short) shuts operation down.
Safety Agency Approval	UL1950, CSA22.2-234, VDE/EN60950, CE Mark.
Warranty	2 years.

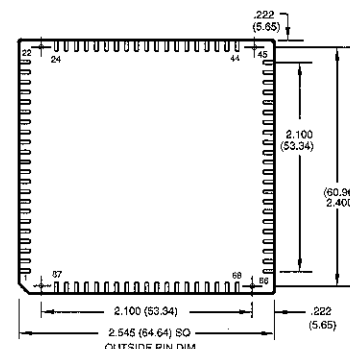
VOLTAGE (V)	CURRENT (A)	POWER (W)	24V INPUT	MODEL	48V INPUT
Single Output					
3.3	1.27	4.20	SM05-24S03		SM05-48S03
3.3	2.55	8.40	SM10-24S03		SM10-48S03
3.3	5.00	16.50	SM20-24S03		SM20-48S03
3.3	7.50	24.75	SM30-24S03		SM30-48S03
5	1.00	5.00	SM05-24S05		SM05-48S05
5	2.00	10.00	SM10-24S05		SM10-48S05
5	4.00	20.00	SM20-24S05		SM20-48S05
5	6.00	30.00	SM30-24S05		SM30-48S05
12	0.42	5.00	SM05-24S12		SM05-48S12
12	0.83	10.00	SM10-24S12		SM10-48S12
12	1.67	20.00	SM20-24S12		SM20-48S12
12	2.50	30.00	SM30-24S12		SM30-48S12
15	0.33	5.00	SM05-24S15		SM05-48S15
15	0.67	10.00	SM10-24S15		SM10-48S15
15	1.33	20.00	SM20-24S15		SM20-48S15
15	2.00	30.00	SM30-24S15		SM30-48S15
Dual Output					
±12	0.21	5.00	SM05-24D12		SM05-48D12
±12	0.42	10.00	SM10-24D12		SM10-48D12
±12	0.83	20.00	SM20-24D12		SM20-48D12
±12	1.25	30.00	SM30-24D12		SM30-48D12
±15	0.17	5.00	SM05-24D15		SM05-48D15
±15	0.33	10.00	SM10-24D15		SM10-48D15
±15	0.67	20.00	SM20-24D15		SM20-48D15
±15	1.00	30.00	SM30-24D15		SM30-48D15
Triple Output					
3, ±12	7, 1	30.00	SM30-24T03-12		SM30-48T03-12
3, ±15	7, .8	30.00	SM30-24T03-15		SM30-48T03-15
5, ±12	5, 1	30.00	SM30-24T05-12		SM30-48T05-12
5, ±15	5, .8	30.00	SM30-24T05-15		SM30-48T05-15



SM10 BOTTOM VIEW OUTLINE



SM20 BOTTOM VIEW OUTLINE



SM30 BOTTOM VIEW OUTLINE

NOTE: DIMENSIONS ARE IN INCHES
EXCEPT DIMENSIONS IN () ARE IN MM.

