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- The image shows two views of a custom PCB power supply module. The top view shows the front of the board, which is green and populated with various components. A large black toroidal transformer is mounted in the center. To the left of the transformer are three electrolytic capacitors and a small integrated circuit. To the right are two more electrolytic capacitors, another integrated circuit, and a small heat sink. The board has several pins extending from the bottom. The bottom view shows the reverse side of the board, revealing the soldering of components and the underside of the transformer.

NOTE: Nominal Input Voltage 5.0VDC

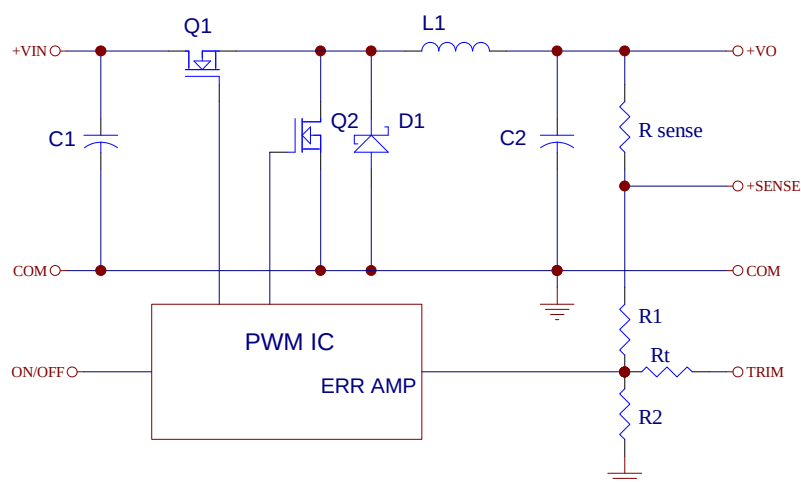


Figure 1. Simplified Schematic

SPECIFICATIONS

All Specifications Typical At Nominal Line, Full Load, and 25°C Unless Otherwise Noted

INPUT SPECIFICATIONS:

Input Voltage Range	5V	3.0 – 5.5V
	5V	4.5 – 5.5V
Under Voltage Lock-out	Power up	2.8V typ.
	Power down	2.7V typ.

Input Filter Type.....Capacitive

Positive Remote on/off Control:

Module ON	Open Circuit or = Vin
Module OFF	<0.4Vdc

OUTPUT SPECIFICATIONS:

Voltage Accuracy	±1.5% max.
Transient Response: 25% Step Load Change	<200us
Ripple and Noise, 20MHz BW (note 3)	20mVrms max.

50mVpk-pk max.

Temperature Coefficient	±0.03%/C max.
Short Circuit Protection	Continuous
Line Regulation (note 1)	±0.2% max.
Load Regulation (note 2)	±0.5% max.
Capacitive Load, Low ESR	10000uF max.
External Trim Adj. Range	±10%
Start up time	4.5ms typ.

GENERAL SPECIFICATIONS:

Efficiency	See Table
Isolation Voltage	Non-isolation
Switching Frequency	300KHz typ.
Over Temperature Protection	120°C typ.
Operating Ambient Temperature Range	-40°C to +85°C
Power Derating Curve	see Figure2, 3
Storage Temperature Range	-55°C to +125°C
MTBF	MIL-STD-217F, GB, 25°C, Full Load 1.5Mhrs typ.
Dimensions: SIP Package:	2.00x0.52x0.33 inches (50.8x13.2x8.3 mm)

SMT Package: 1.30x0.530x0.366 inches (33.0x12.46x9.3 mm)

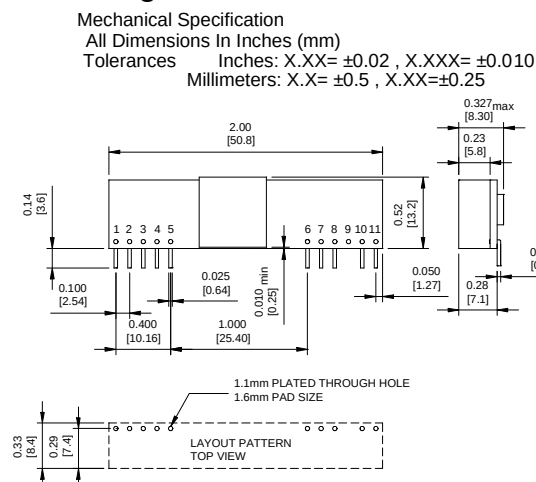
Structure	Non-potted With Open Frame Type
Weight	6.8g

NOTE :

1. Measured From High Line to Low Line
2. Measured From Full Load to Zero Load
3. The output noise is measured with 10uf tantalum capacitor and 1uf ceramic capacitor across output.
4. The Input Terminal Recommend to Parallel With 100uF Capacitor ESR<20mΩ to Reduce The Input Ripple Voltage
5. Suffix "N" to the Model Number with Negative Logic Remote on/off
 Model ON Open Circuit or < 0.4VDC
 Module OFF >+2.8VDC to Vin

Dimensions:

SIP Packages



SMT Packages

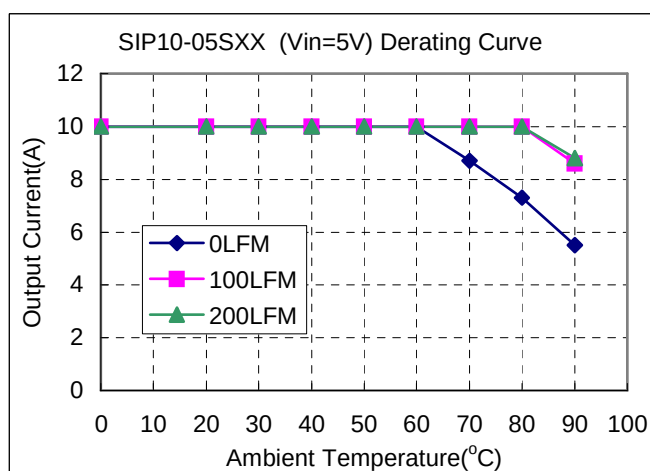
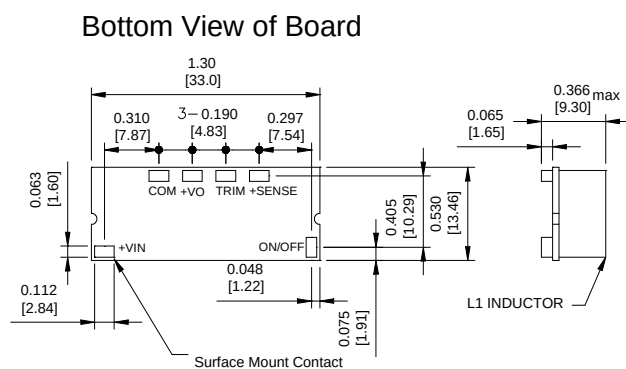


Figure2. Typical Power De-rating for 5V IN

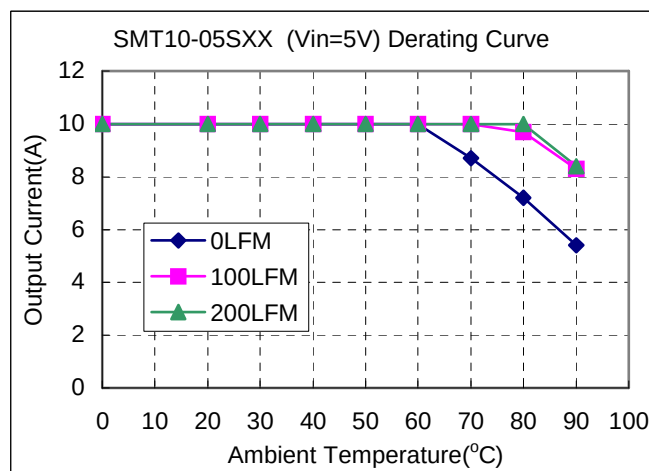


Figure3. Typical Power De-rating for 5V IN

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