

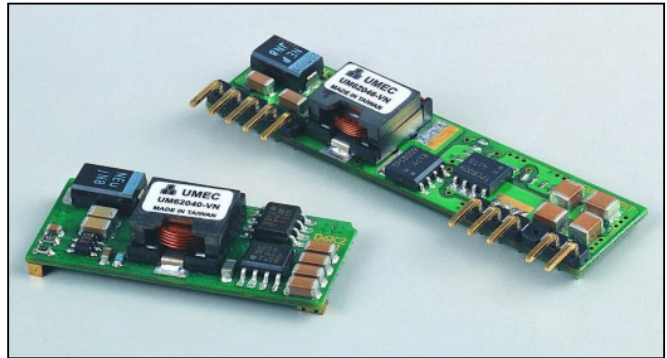
UMEC International Corporation

UM6200 SERIES

Green Product
RoHS

4.5-50 Watt DC-DC Converters

- ◆ Input Voltage Range: 3.3V-5.5V/10V-14V
- ◆ Non-Isolated POL Modules
- ◆ Ultra High Efficiency
- ◆ Open-Frame
- ◆ Output Overcurrent Protection with Auto-restart
- ◆ Remote on/off Control
- ◆ Industry Standard SIP Pin-out Configuration/
Surface-Mount Footprint
- ◆ RoHS Compliant



SPECIFICATIONS

All specifications are typical at nominal line, full load, airflow rate: 300LFM and 25°C unless otherwise noted.

INPUT SPECIFICATIONS

Input Voltage Range¹, 5V 3.3-5.5V
 12V 10-14V
 Input External Bypass Capacitance² 100uF

OUTPUT SPECIFICATIONS

Voltage Accuracy³ ±2%max.
 Transient Response⁴, Single, 25% step Load Change,
 ±1% Error Band, 5V <50u sec.
 12V <100u sec.
 External Trim Adj. Range ±10%
 Line Regulation⁵ ±1.0% max.
 Load Regulation⁶ ±1.5% max.
 Ripple and Noise, 20MHz BW⁷, 5V 50mV p-p max.
 12V 80mV p-p max.
 25mVrms max.

GENERAL SPECIFICATIONS

Efficiency See Table
 Switch Frequency, 5V 300KHz typ.
 12V 200KHz typ.
 Over temperature shutdown point⁸ 115°C typ.
 Operation Temperature⁹ -40°C to +100°C
 Storage Temperature Range -40°C to +125°C
 Dimensions 2.0*0.32*0.5 inches
 (50.8*8.1*12.7 mm)
 Weight 8.5g

APPLICATIONS

Distributed Power Architecture (DPA)
 Intermediate Bus Architecture (IBA)
 Telecommunication Equipment
 Datacommunication Equipment
 Servers and Workstations
 Latest Generation IC's (DSP, ASIC, FPGA) and
 Microprocessor Powered Applications
 LANs/WANs Applications

NOTE

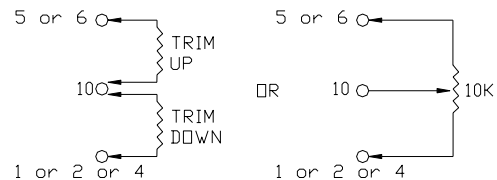
1. When $V_o > 2.5V$, then V_{in} range from 4.5V to 5.5V.
 When $V_o \leq 2.5V$, then V_{in} range from 3V to 5.5V.
2. Recommended customer added capacitance.
3. Defined at the static output regulation at 25°C, including initial setting accuracy, Line voltage within stated limits and load current within stated limits.
4. $di/dt = 0.1A/1\mu S$, $T_c = 25^\circ C$; load change = 0.5 I_o max. to 0.75 I_o max. and 0.75 I_o max. to 0.5 I_o max.
5. Measured from high line to low line.
6. Measured from full load to 1/10 load.
7. Measured with 100uF Low ESR tantalum capacitor and 1uF ceramic capacitor across output.
8. Non-latching shutdown protection
9. Defined as the highest temperature measured at any one of the specified temperature hotspot checkpoints.
10. Standard product is active low. eg: UM62030-VN, active high remote ON/OFF option is available, to order suffix a "P" to the model number e.g. UM62030-VP.

REMOTE ON/OFF CONTROL

Logic Compatibility.....	CMOS or Open Collector TTL
Ec-OFF	> +2.5 VDC
Ec-ON	< 0.8 VDC or Open Circuit
Control Common	Referenced to Input Minus

EXTERNAL OUTPUT TRIMMING

Output may optionally be externally trimmed with a fixed resistor or an external trimpot as shown.



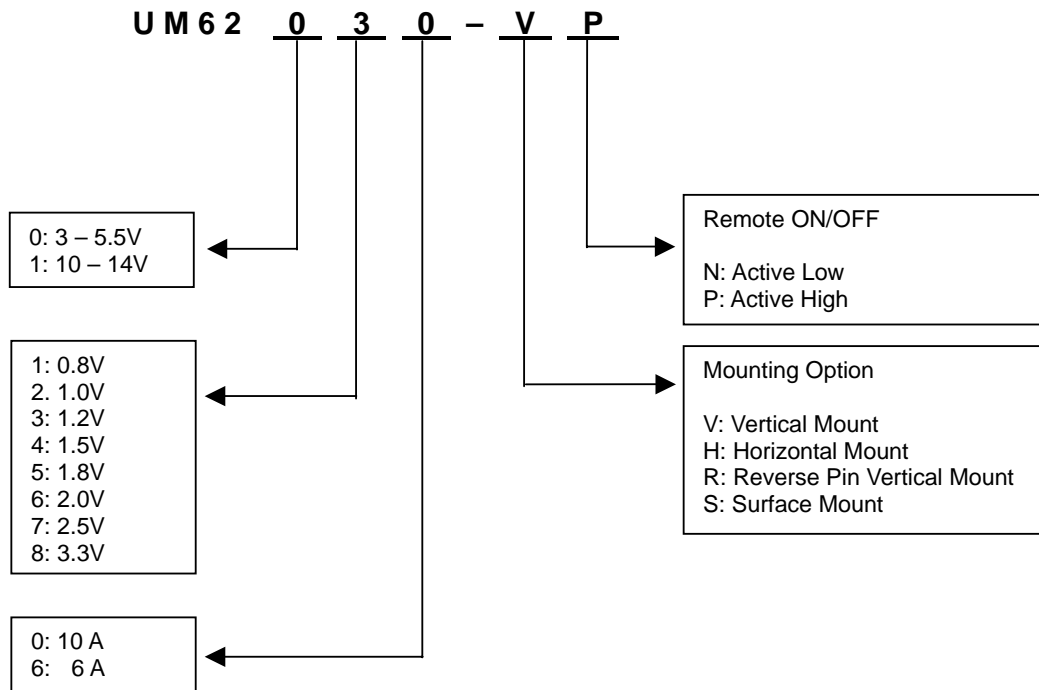
UMEC International Corporation
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MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT RATED LOAD (Amps)	INPUT CURRENT FULL LOAD (mA)	TYPICAL EFFICIENCY (%)
UM62010(6)	5.0	0.8	10(6)	1928	83
UM62020(6)	5.0	1.0	10(6)	2326	86
UM62030(6)	5.0	1.2	10(6)	2728	88
UM62040(6)	5.0	1.5	10(6)	3334	90
UM62050(6)	5.0	1.8	10(6)	3914	92
UM62060(6)	5.0	2.0	10(6)	4302	93
UM62070(6)	5.0	2.5	10(6)	5320	94
UM62080(6)	5.0	3.3	10(6)	6948	95
UM62090(6)	5.0	0.75 – 3.63	10(6)	7750	95
UM62130(6)	12	1.2	10(6)	1191	84
UM62140(6)	12	1.5	10(6)	1454	86
UM62150(6)	12	1.8	10(6)	1705	88
UM62160(6)	12	2.0	10(6)	1832	91
UM62170(6)	12	2.5	10(6)	2217	94
UM62180(6)	12	3.3	10(6)	2926	94

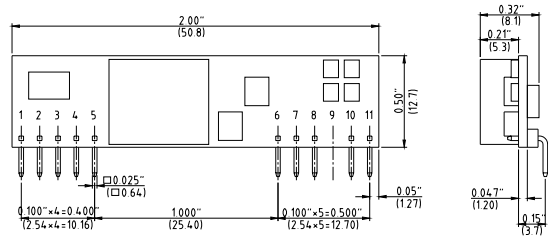
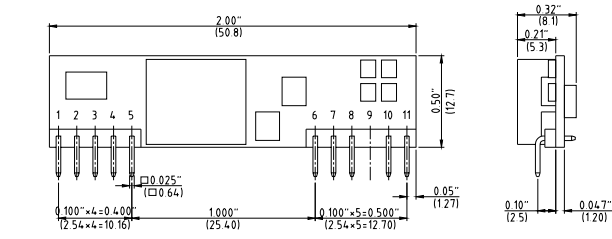
PART NUMBER STRUCTURE



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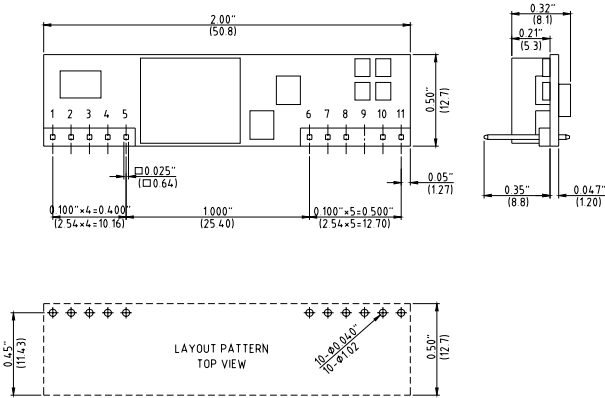
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Vertical Mounting-V
(Standard)

Reverse Pin
Vertical Mounting-R



Horizontal Mounting-H

Pin Connections (SIP)	
Pin	Function
1	+Vout
2	+Vout
3	Remote Sense (+)
4	+Vout
5	Ground
6	Ground
7	+Vin
8	+Vin
9	No Pin
10	Trim
11	Remote ON/OFF

All dimensions in inches (mm)

Tolerance .xx =±0.04"

.xxx =±0.010"

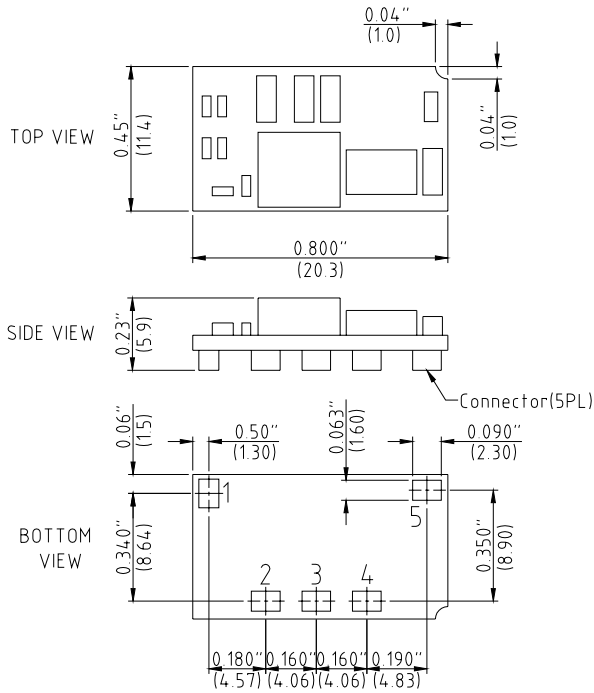
NOTE: If remote sensing isn't utilized, output sense pin must be jumpered to respective output pins.



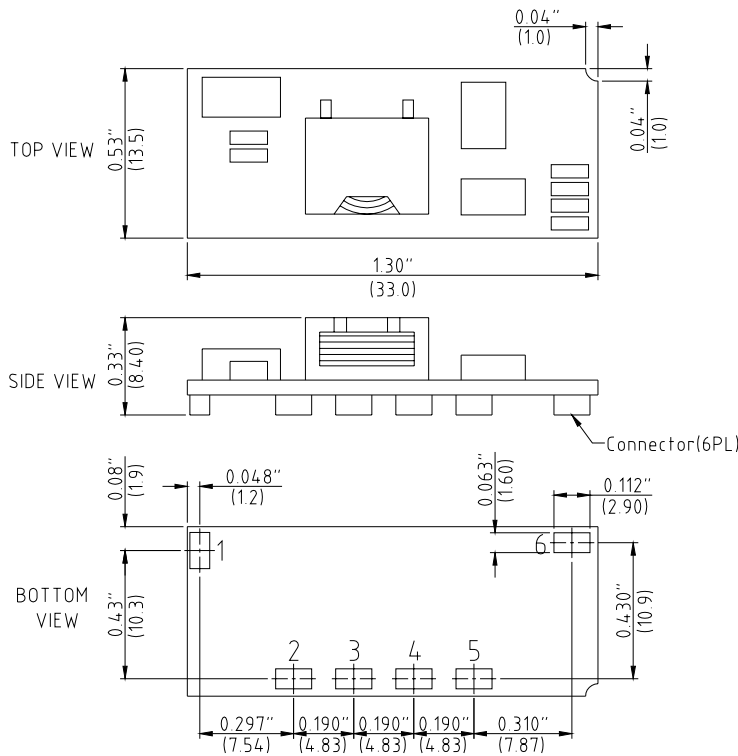
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Pin Connections (SMT, 6A)	
Pin	Function
1	Remote ON/OFF
2	+Vout
3	Trim
4	Ground
5	+Vin



Pin Connections (SMT, 10A)	
Pin	Function
1	Remote ON/OFF
2	Remote Sense
3	Trim
4	+Vout
5	Ground
6	+Vin

All dimensions in inches (mm)

Tolerance .xx =±0.04"

.xxx =±0.010"

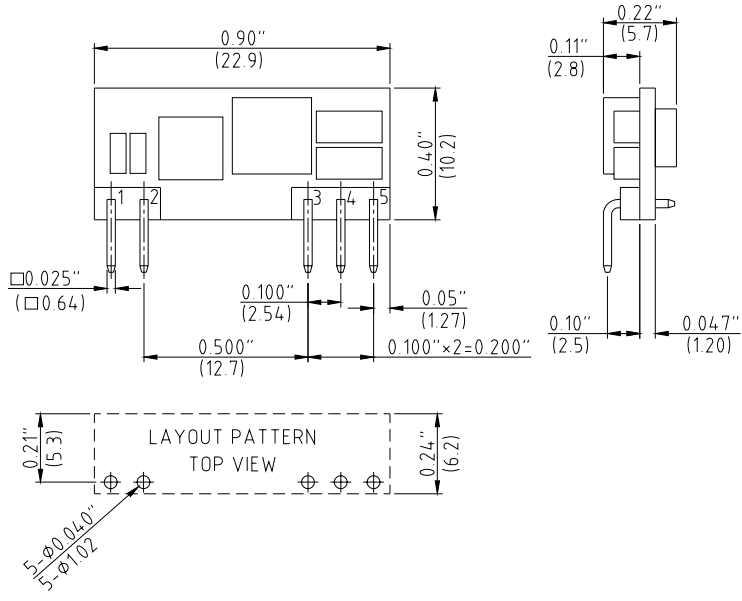
NOTE: If remote sensing isn't utilized, output sense pin must be jumpered to respective output pins.



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Pin Connections (DIP, 6A)	
Pin	Function
1	Remote ON/OFF
2	+Vin
3	Ground
4	Trim
5	+Vout

All dimensions in inches (mm)
 Tolerance .xx = ±0.04"
 .xxx = ±0.010"
 NOTE: Only for UM62096VX.



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