

JHM03-06 Series



- International Medical Approvals
- 1600VAC Basic Isolation
- 60 °C Operation With No Derating
- 2 μ A Patient Leakage Current
- DIP-24 Package
- Single & Dual Outputs
- EN55011 Level A With No External Components

Specification

Input

Input Voltage Range	• 12 V (10-17 VDC) • 24 V (20-30 VDC)
Input Current	• See table
Inrush Current	• 25 A at 30 V for JHM06 • TBA for JHM03
Input Filter	• Pi network
Patient Leakage Current	• 2 μ A
Undervoltage Lockout	•

Output

Output Voltage	• See table
Output Voltage Trim	• \pm 10%
Minimum Load	• No minimum load required
Initial Set Accuracy	• \pm 1%
Start Up Delay	• 5 ms
Start Up Rise Time	• 2 ms
Line Regulation	• \pm 0.3%
Load Regulation	• \pm 2% 0% to 10% load, • \pm 10% 10% to 100% load
Cross Regulation	• \pm 4% on dual with one o/p set to • 50% load and the other varied from • 0% to 100% load
Transient Response	• 4% max deviation, recovery to within 1% • in $<$ 500 μ s for a 50% load change at 0.25 • A/ μ s rate
Ripple & Noise	• 1% pk-pk
Overload Protection	• $>$ 120%
Overvoltage Protection	• $>$ 120%
Temperature Coefficient	• \pm 0.03/ $^{\circ}$ C max

General

Efficiency	• See tables
Isolation	• 5000 VAC for 10 ms, • 1600 VAC basic isolation for 1 min.
Input to Output Capacitance	• 20 pF max
Switching Frequency	• ??? kHz typical
MTBF	• ??? ?Hrs to MIL-STD-217F

Environmental

Operating Temperature	• -20 $^{\circ}$ C to +60 $^{\circ}$ C, no derating
Case Temperature	• +100 $^{\circ}$ C max
Storage Temperature	• -40 $^{\circ}$ C to +100 $^{\circ}$ C
Operating Humidity	• 5-90%, non-condensing
Cooling	• Natural convection

EMC & Safety

Emissions	• EN55011 & EN55022 level A conducted & • radiated with no external components
Immunity	• IEC60601-1-2, EN61204-3
ESD Immunity	• EN61000-4-2, level 2, Perf Criteria A
Radiated Immunity	• EN61000-4-3, 10 V/m Perf Criteria A
EFT/Burst	• EN61000-4-4, level 3 Perf Criteria A
Surge	• EN61000-4-5, level 1 Perf Criteria A
Conducted Immunity	• EN61000-4-6, 10 Vm, Perf Criteria A
Magnetic Field	• EN61000-4-8, 3 A/m Perf Criteria A
Safety Approvals	• cUL60601-1 3rd Edition (ANSI/AAMI, ES • 60601-1:2005), IEC60601-1 3rd edition

Input Voltage	Output Voltage	Output Current	Input Current		Maximum Capacitive Load	Efficiency	Model Number
			No Load ⁽¹⁾	Full Load ⁽²⁾			
10-17 V	5.0 V	600 mA					JHM0312S05
	12.0 V	250 mA					JHM0312S12
	15.0 V	200 mA					JHM0312S15
	±12.0 V	±125 mA					JHM0312D12
	±15.0 V	±100 mA					JHM0312D15
20-30 V	5.0 V	600 mA					JHM0324S05
	12.0 V	250 mA					JHM0324S12
	15.0 V	200 mA					JHM0324S15
	±12.0 V	±125 mA					JHM0324D12
	±15.0 V	±100 mA					JHM0324D15
10-17 V	5.0 V	12000 mA	80 mA	850 mA	1200 µF	78%	JHM0612S05
	12.0 V	500 mA	80 mA	850 mA	500 µF	80%	JHM0612S12
	15.0 V	400 mA	80 mA	850 mA	400 µF	83%	JHM0612S15
	±12.0 V	±250 mA	80 mA	850 mA	±250 µF	83%	JHM0612D12
	±15.0 V	±200 mA	80 mA	850 mA	±200 µF	84%	JHM0612D15
20-30 V	5.0 V	12000 mA	40 mA	420 mA	1200 µF	78%	JHM0624S05
	12.0 V	500 mA	40 mA	420 mA	500 µF	83%	JHM0624S12
	15.0 V	400 mA	40 mA	420 mA	400 µF	85%	JHM0624S15
	±12.0 V	±250 mA	40 mA	420 mA	±250 µF	83%	JHM0624D12
	±15.0 V	±200 mA	40 mA	420 mA	±200 µF	83%	JHM0624D15

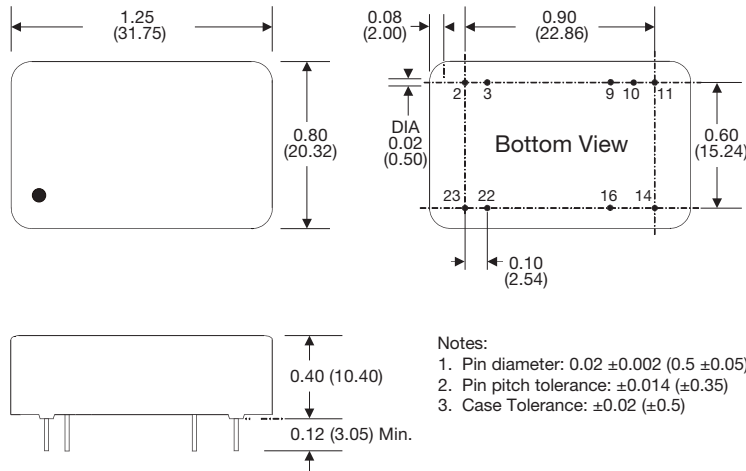
Notes

1. Input current measured at nominal input voltage.
2. Input current measured at lowest input voltage.
3. Typical values.

Mechanical Details

All dimensions are in inches (mm) Weight: 0.04 lbs (20 g) approx.

24 Pin DIL Package



- Notes:
1. Pin diameter: 0.02 ±0.002 (0.5 ±0.05)
 2. Pin pitch tolerance: ±0.014 (±0.35)
 3. Case Tolerance: ±0.02 (±0.5)

Pin Connections		
Pin	Single	Dual
2	-Vin	-Vin
3	-Vin	-Vin
9	No Pin	Common
10	No Pin	Not Connected
11	Not Connected	-Vout
14	+Vout	+Vout
16	-Vout	Common
22	+Vin	+Vin
23	+Vin	+Vin