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DMC42739

Specifications and Applications Information

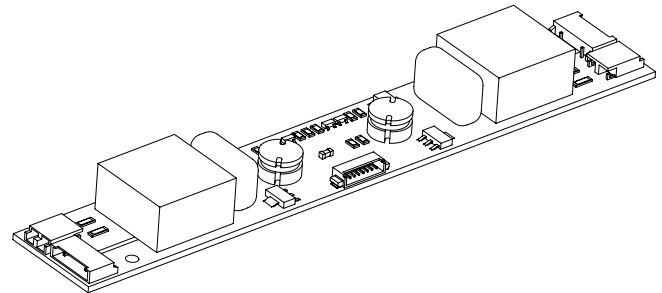
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Preliminary

Four Tube DC to AC Inverter

The ERG DMC42739 (DMC4 Series) DC to AC inverter features onboard connectors and can be easily dimmed using an external pulse-width modulated control signal. This unit is less than 13mm in height and the two mounting holes makes installation very straight forward.

Powered by a regulated +12 volt DC source the DMC42739 is specially designed to power the Optrex AA150XB02 backlights.



DMC4 Package

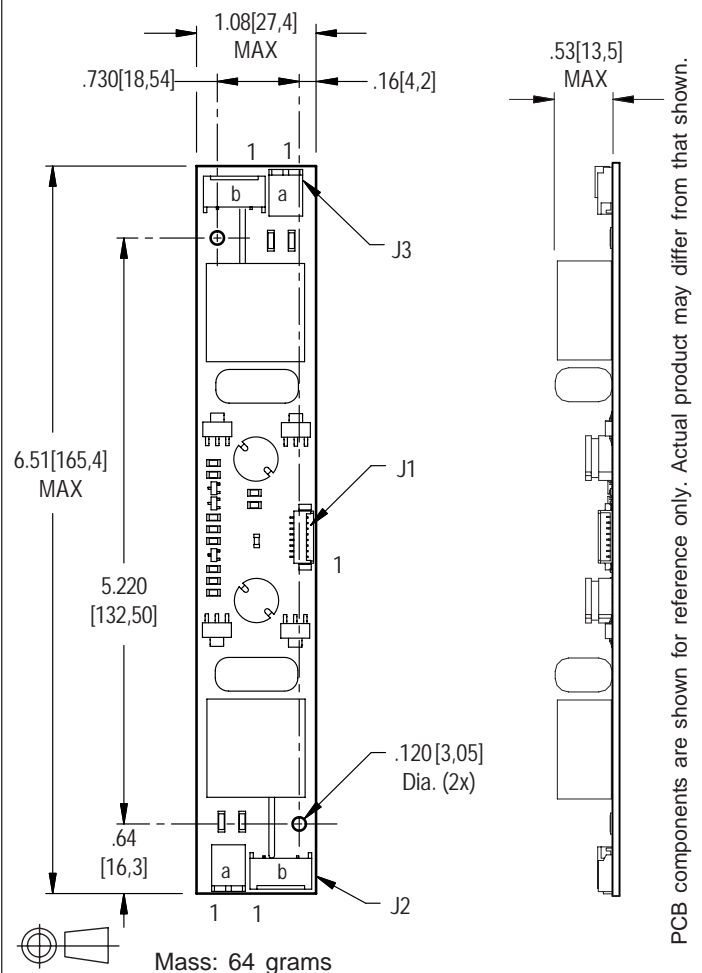
Product Features

- ✓ Small Package Size, less than 13mm in height.
- ✓ High Efficiency
- ✓ Made in U.S.A.

Connectors

| J1 - (Input) MOLEX 532-61-0890 | J2a,J3a - (Outputs) N/A | |
|---|---|------------|
| | J2a,J3a-1 J2a,J3a-2 | N/A N/A |
| J1-1 V_{in} J1-2 V_{in} J1-3 GND J1-4 GND J1-5 Enable J1-6 N/C J1-7 N/C J1-8 N/C | J2b,J3b - (Outputs) JST SM04(4.0)B-BHS-1-TB | |
| | J2b, J3b-1 | AC_{out} |
| | J2b, J3b-2 | AC_{out} |
| | J2b, J3b-3 | N/C |
| | J2b, J3b-4 | AC_{com} |
| | | |

Package Configuration





Absolute Maximum Ratings ^(Note 1)

| Rating | Symbol | Value | Units |
|-----------------------|--------------|---------------|-------|
| Input Voltage | V_{in} | -0.3 to +13.2 | Vdc |
| Enable | V_{Enable} | -0.3 to +0.3 | Vdc |
| Operating Temperature | T_a | -0 to +85 | °C |
| Storage Temperature | T_s | -40 to +85 | °C |

Recommended Operating Conditions

| Rating | Symbol | Value | Units |
|---|----------|------------|-------|
| Input Voltage | V_{in} | +6 to 13.2 | Vdc |
| Operating Temperature ^(Note 2) | T_a | 0 to +50 | °C |

Electrical Characteristics

Unless otherwise noted $V_{in} = 12.00$ Volts dc and $T_a = 25^{\circ}\text{C}$

| Characteristic | Symbol | Min | Typ | Max | Units |
|--|-------------|------|-----|-----|--------------|
| Input Current | I_{in} | - | 1.4 | 1.7 | A_{DC} |
| Input Ripple Current | I_{rip} | - | - | - | mA_{pk-pk} |
| Operating Frequency | F_o | 35 | 40 | 45 | KHz |
| Efficiency | η | - | 84 | - | % |
| Output Voltage (no load) ^(Note 3) | V_{start} | 1400 | - | - | V |
| Output Voltage (with lamp) | V_{out} | - | 570 | - | V |
| Output Current (per tube) | I_{out} | - | 6.2 | - | mArms |
| Enable (pin J1-5) | | | | | |
| Turn-off Threshold | V_{thoff} | - | - | .7 | V |
| Turn-On Threshold | V_{thon} | 2 | - | - | V |

(Note 1) Reliable and predictable operation of the device are not guaranteed with applied stresses at or beyond those listed in "Absolute Maximum Ratings". Operation at these limits may reduce device reliability and is therefore not recommended. Please refer to "Recommended Operating Conditions" for reliable operation of the device.

(Note 2) Operation above 50°C is possible if airflow is provided.

(Note 3) Provided data is not tested but guaranteed by design.