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DMA22570

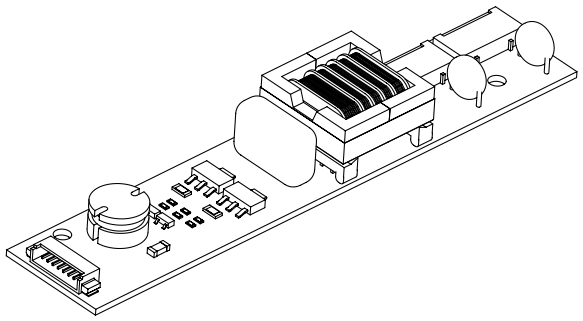
Specifications and Applications Information

06/27/01 Preliminary

Two Tube
DC to AC Inverter

The ERG DMA22570 (DMA 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 DMA22570 is specially designed to power the Samsung LTM121SI-T01 backlight.

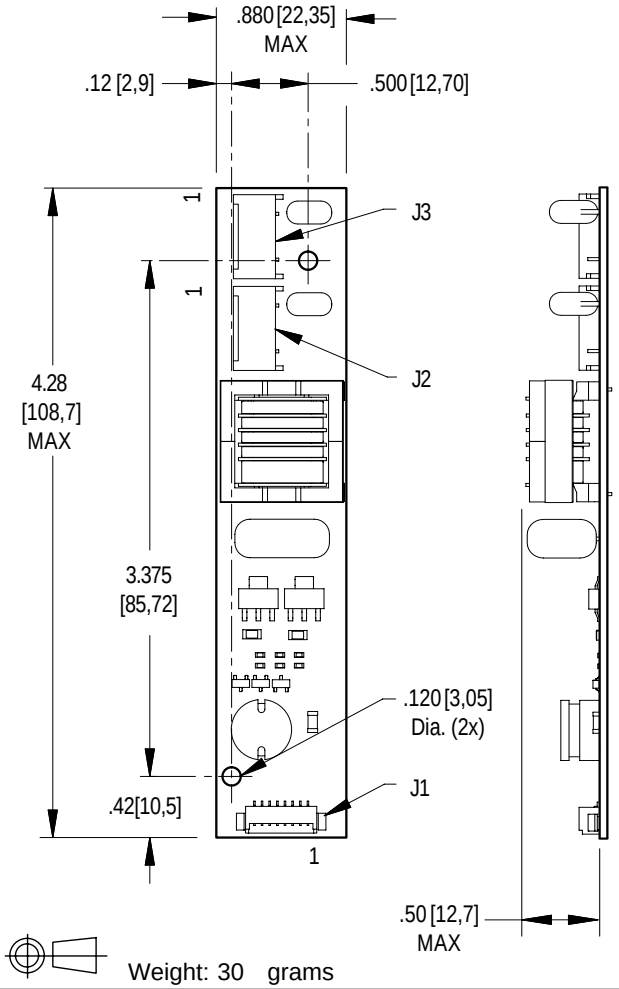


DMA Package

Product Features

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

Package Configuration



Weight: 30 grams

PCB components are shown for reference only. Actual product may differ from that shown.

Connectors	
J1 - (Input) MOLEX 532-61-0890	**J2,J3 - (Outputs)** JST SM02(8.0)B-BHS-1-TB

Pinouts	
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	J2-1 AC_{out} J2-2 AC_{com} J3-1 AC_{out} J3-2 AC_{com}

DMA22570

Absolute Maximum Ratings (Note 1)

Rating	Symbol	Value	Units
Input Voltage	V_{in}	-0.3 to +15	V_{DC}
Enable	V_{Enable}	-0.3 to +15	V_{DC}
Operating Temperature	T_a	0 to +85	^oC
Storage Temperature	T_s	-40 to +85	^oC

Recommended Operating Conditions

Rating	Symbol	Value	Units
Input Voltage	V_{in}	10.8 to 13.2	V_{DC}
Operating Temperature (Note 2)	T_a	0 to +50	^oC

Electrical Characteristics

Unless otherwise noted Vin = 12.00 Volts DC , T_a = 25 ^oC and unit has been running for 15 minutes.

Characteristic	Symbol	Min	Typ	Max	Units
Inverter					
Input Current	I_{in}	-	0.590	0.700	A_{DC}
Input Ripple Current	I_{rip}	-	-	-	mA_{pk-pk}
Operating Frequency	F_o	32	37	42	KHz
Efficiency	η	-	90	-	%
Output Voltage (no load) (Note 3)	V_{start}	1500	-	-	V
Output Voltage (with lamp)	V_{out}	-	550	-	V
Output Current (per tube)	I_{out}	-	6.0	-	mArms
Enable (pin J1-5)					
Turn-Off Threshold	V_{thoff}	-	-	0.7	V
Turn-On Threshold	V_{thon}	2.0	-	-	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^{o}C is possible if airflow is provided.

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