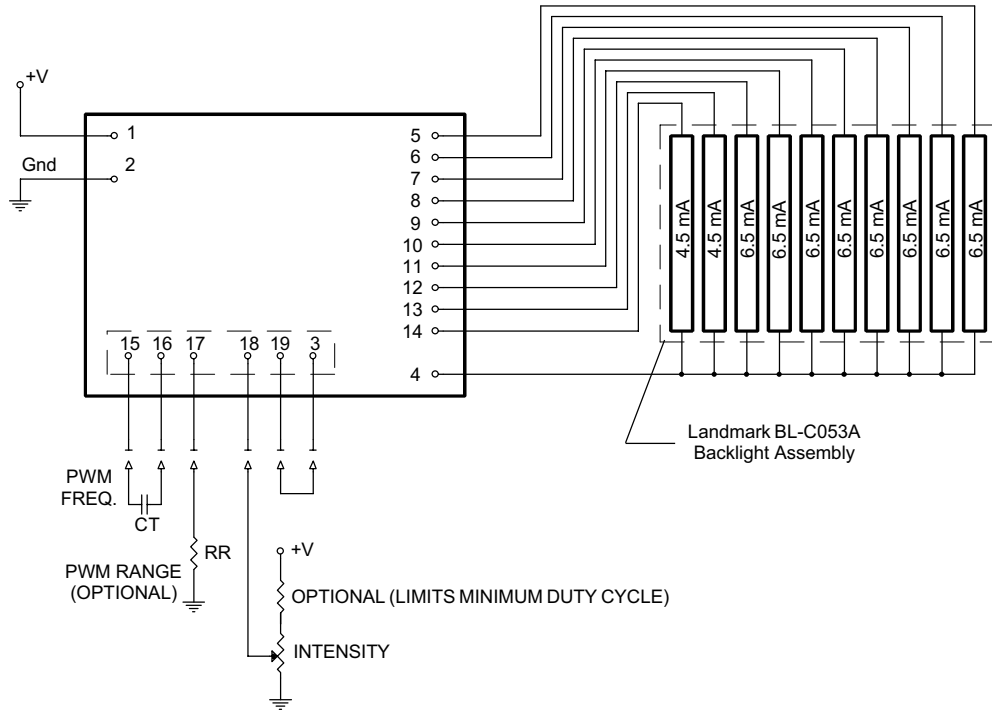


R202243

FIGURE 10 - TYPICAL CONNECTION UTILIZING INTERNAL PWM GENERATOR



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R202243

Specifications and Applications Information
 4/23/99 Preliminary

10 Tube DC to AC Inverter

The ERG R202243 dc to ac inverter is specifically designed to power the Landmark BL-C053A 10 tube LCD backlight module. It provides for flicker-free dimming from either an analog or digital control input.

The R202243's high power density, dimming control, and encapsulated package make it the ideal power source for applications where high efficiency and reliability in lighting multiple tube backlights are critical.

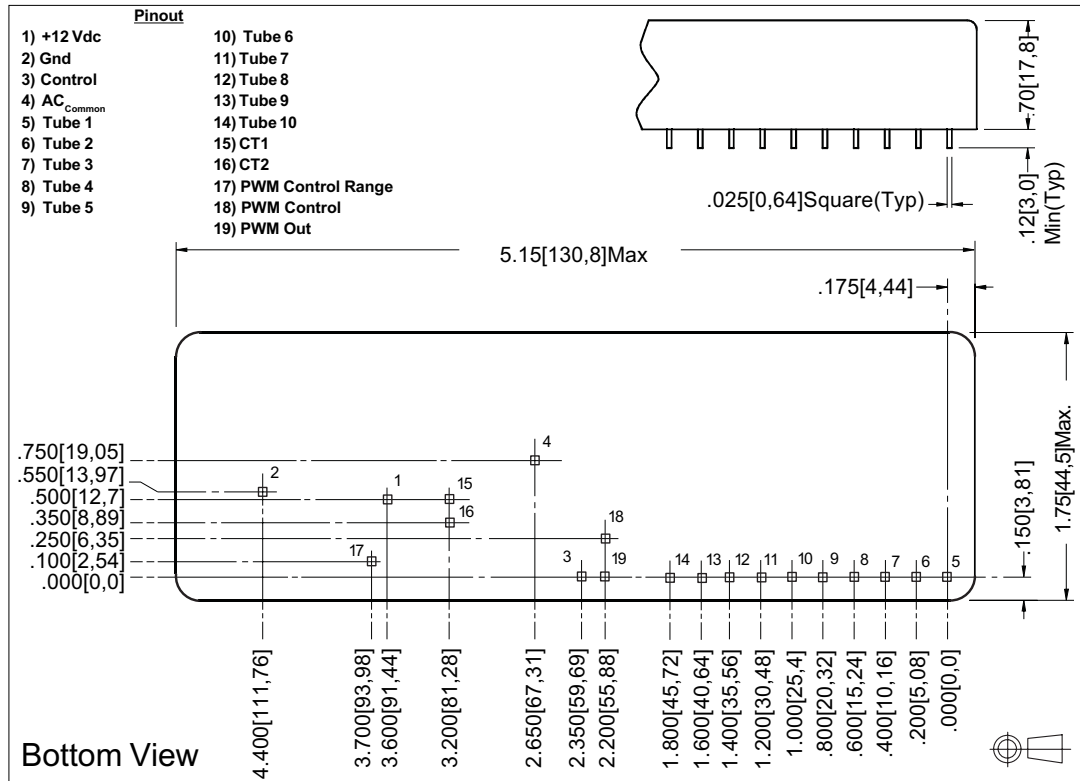


FIGURE 1 - ELECTRICAL CHARACTERISTICS

Absolute Maximum Ratings

Rating	Symbol	Value	Units
Input Voltage Range	V _{in}	-0.3 to +15.0	Vdc
Operating Temperature	T _o	0 to +70	°C
Storage Temperature	T _{stg}	-40 to +85	°C
Case Temperature	T _{CASE}	85	°C

Recommended Operating Conditions

Rating	Symbol	Value	Units
Input Voltage	V _{in}	+10.2 to 13.8	Vdc

Electrical Characteristics

Unless otherwise noted V_{in} = 12.00 Volts dc and T_a = 25°C.

Characteristic	Symbol	Min	Typ	Max	Units
Input Current	I _{in}	-	2.34	-	A _{dc}
Operating Frequency	F _o	-	30	-	KHz
Tube Starting Voltage *	V _{start}	1160	-	-	V _{rms}
Efficiency	η	-	84	-	%
Output Current (per tube) Main CCFTs (8) Supplemental CCFTs (2)	I _{out}	-	6.5 4.5	-	m _{arms}
Output Voltage ** Main CCFTs (8) Supplemental CCFTs (2)	V _{out}	-	395 325	-	V _{rms}
CCFT Control Level (Pin 3) CCFT Output Off CCFT Output On		2.2	-	1.5	V _{dc}
CCFT Control Pin Sink Current			1.1	1.4	mA _{dc}
PWM Frequency Range		50		1000	Hz
PWM Frequency ***			180		Hz
PWM Control Voltage (Pin 18)		0		+V _{in} -2	V _{dc}
Input Bias Current (Pin 18)			45	250	nA _{dc}
PWM Control Range Program Resistance (Pin 17)		1			Kohm
PWM Output Level (Pin 19) Low High		10	5 11	50	mV _{dc} V _{dc}

INVERTER SECTION

SHUT-DOWN SECTION

INTERNAL PWM GENERATOR

* Valid over entire operating temp. range
 ** Measured, not guaranteed
 *** CT = .33uF Across Pins 15 & 16, see test circuit Figure 8



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Typical Performance Curves
(No Dimming)

FIGURE 6 - TUBE FREQUENCY VS. INPUT VOLTAGE

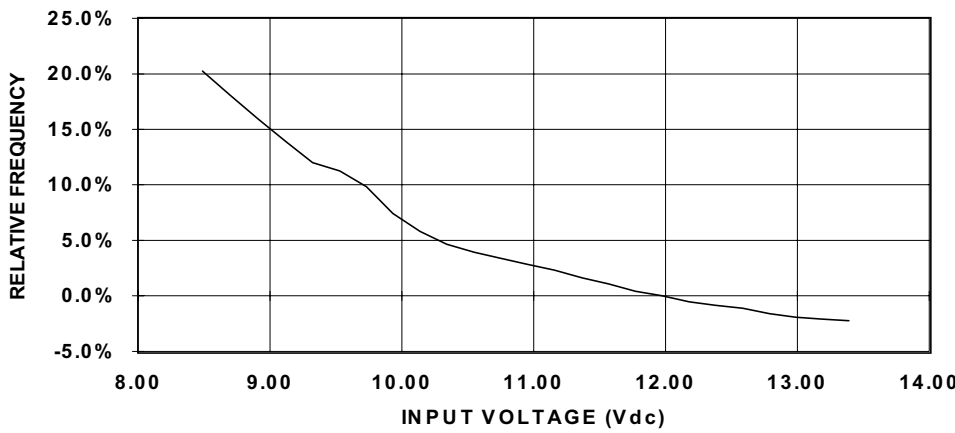
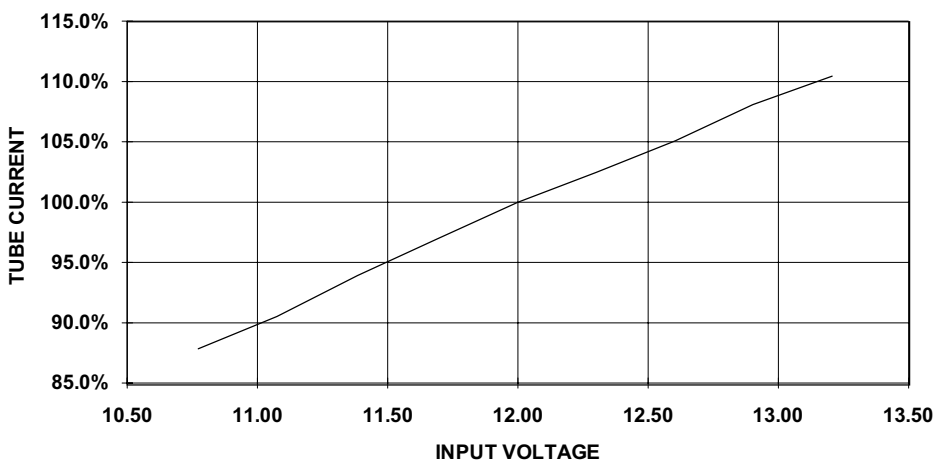


FIGURE 7 - TUBE CURRENT vs. INPUT VOLTAGE



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