

LEDC10-12-R48

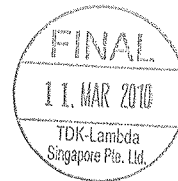
SPECIFICATIONS

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MODEL		LEDC10-12-R48			REV
1	Maximum Output Current (*)	A	0.48 (0.35)		
2	Maximum Output Power (*)	W	9.6 (7.0)		
3	Efficiency (Typ) (*)	%	87		
4	Input Voltage Range (*)	V	4.5 - 20		
	Nominal Input Voltage	V	12		
5	Input Current (Full Load) (Typ)	mA	920		
	Input Current (No Load)	mA	7		
6	Start up Time (*)	mS	< 100		
7	Output Voltage Range (*)	V	3 - 20		
8	Output Current Setting	-	Trim1	Trim2	Output Current
			0	0	50mA
			0	1	150mA
			1	0	350mA
			1	1	480mA
9	Output Current Accuracy (*)	%	± 5 (± 10)		
10	Output Current Stability (*)	%	± 1		
11	Output Current Rise Time	uS	3		
12	Output Current Fall Time	uS	3		
13	Maximum Capacitive Load	nF	100		
14	Maximum Ripple & Noise (*)	-	150 mV pkpk		
15	Temperature Coefficient	-	Less than ± 0.02% / °C		
16	Short Circuit Protection	-	Indefinite (Automatic Recovery)		
17	Over Voltage Protection (Typ) (*)	V	26 ~ 30		
18	Trim Voltage Level (*) (*)	-	Logic "0" = 0~0.4V		
		-	Logic "1" = 3~5V or open circuit		
19	PWM Control (*) (*)	-	ON = 3~20V or open circuit		
		-	OFF = 0~0.4V or short circuit		
20	PWM Dimming Range (*)	-	Duty Cycle = 10 ~ 100%		
		-	Frequency = 0.1 ~ 1.1kHz		
21	Operating Temperature	-	-40°C ~ 85°C (Refer to Derating Curve)		
22	Operating Humidity	-	5 to 95%RH (No dewdrop)		
23	Storage Temperature	-	-40°C ~ 125°C		
24	Storage Humidity	-	5 to 95%RH (No dewdrop)		
25	Cooling	-	Convection Cooling		
26	Vibration	-	At no operating, 10 - 55Hz (sweep for 1min)		
		-	19.6m/s ² Constant, X, Y, Z 1hour each.		
27	Shock (In shipping packaging)	-	Less than 196.1m/s ²		
28	Weight(Typ.)	g	6.0		
29	Size (H x W x D)	mm	15.2 x 32.0 x 8.5 (Refer to Outline Drawing)		
30	Pin Material	-	Brass Tin-plated		
31	Pin Dimension	-	Ø0.64mm sq. x 4.6mm (4.4 ~ 4.8mm) long		

=NOTES=

- *1. () : Maximum output current / power derating over restricted input voltage range 4.5V min to 9V max.
- *2. Typical value at nominal input voltage and full load.
- *3. Time difference between application of DC input to output current achieving 80% of preset value with PWM Control at "ON" condition
- *4. Output current ripple degrade to +/- 15% for output voltage < 4V.
- *5. () : Output current accuracy for 50mA setting only.
- *6. Tested by nominal input and output voltage from minimum to maximum.
- *7. Ripple/Noise measured with 20MHz bandwidth and 0.1uF ceramic capacitor
- *8. If the voltage on the output terminals exceeds the over voltage set point the module will activate the control loop of internal circuit to clamp the output voltage
- *9. The PWM control and Trim is referenced to GND.
If the PWM control feature is not used, it should be left open.
If the Trim feature is not used, it should be left open to provide the output current of 480mA.
- *10. Driven by open collector/drain transistor, "no pull ups / downs".
- *11. If Pulse Width is zero, then Iout is zero, converter "OFF".
- *12. All specifications are typical at 25°C, nominal input and full load unless otherwise noted.



ISSUED	10. Mar. '10	
ENG.	CHK.	APPD.
SOM	<i>Rudolph</i>	<i>[Signature]</i>

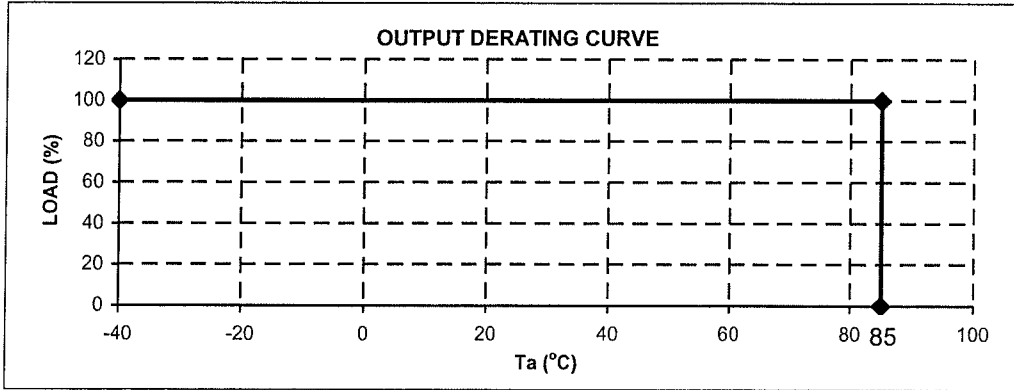
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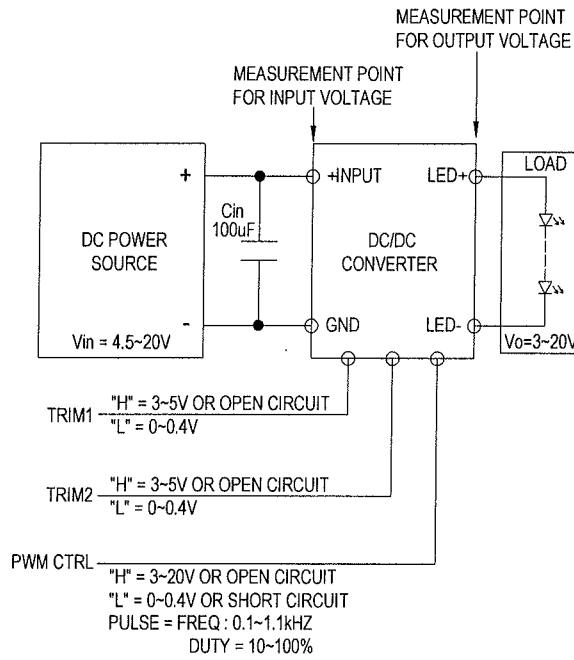
DERATING CURVE :

***COOLING : CONVECTION COOLING**

Ta (°C)	LOAD (%)
-40 ~ +85	100

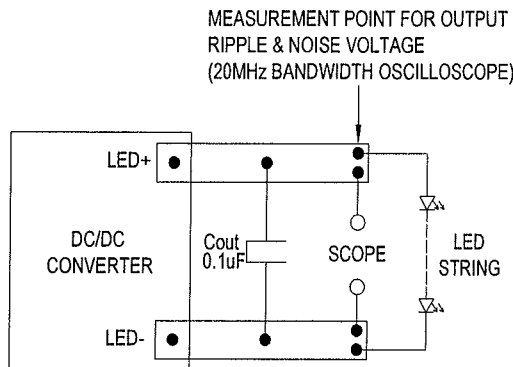


BASIC CONNECTION



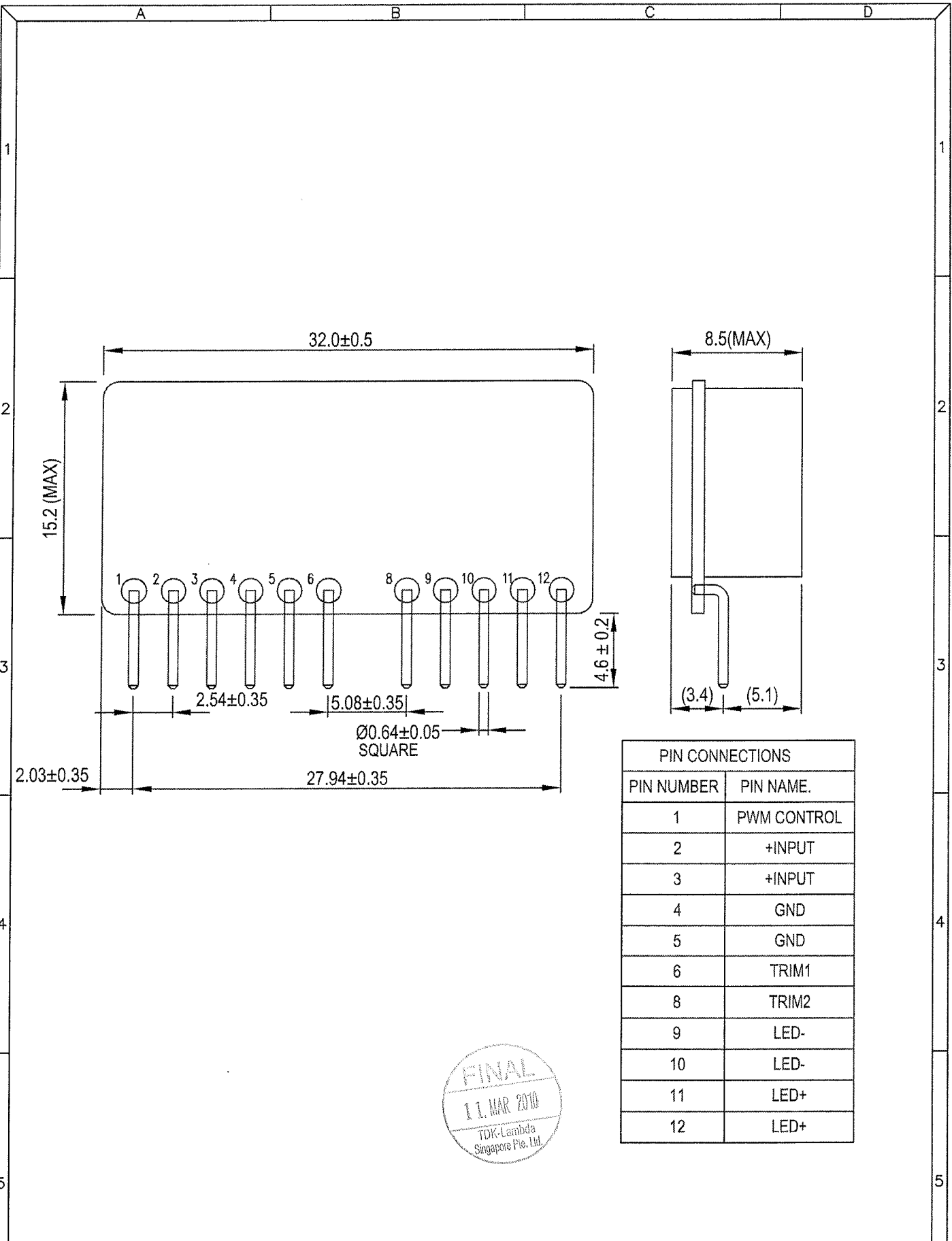
IN APPLICATIONS WHERE POWER IS SUPPLIED OVER LONG LINES AND OUTPUT LOADING IS HIGH, IT IS RECOMMENDED TO USE A GOOD QUALITY LOW EQUIVALENT SERIES RESISTANCE (ESR<1.0Ω AT 100kHz) CAPACITOR WITH 100uF CAPACITANCE FOR THE MODULE.

OUTPUT RIPPLE & NOISE SETUP



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PIN CONNECTIONS	
PIN NUMBER	PIN NAME.
1	PWM CONTROL
2	+INPUT
3	+INPUT
4	GND
5	GND
6	TRIM1
8	TRIM2
9	LED-
10	LED-
11	LED+
12	LED+

FINAL
 11. MAR 2010
 TDK-Lambda
 Singapore Pte. Ltd.

-	-1	NEW RELEASE	10/11/10	SOH	Rudolph	APPD
D	REV	CONTENTS	DATE	ENGR	CHK	APPD
APPD		SCALE	3/1	MATERIALS		TITLE
CHK		UNITS	mm	FINISH		DRAWING No.
ENGR		ANGLE	3RD ANGLE PROJECTION	TDK-Lambda		
						LEDC10-12-R48 OUTLINE PA611-02-01 -- <input type="checkbox"/> PAGE 1/1