

Laser driver board

C14518



Power supply board for easy short pulse evaluation of pulsed laser diodes (PLD)

C14518 is a laser power supply board for easy evaluation of short pulse (4 ns) characteristics of $\phi 5.6$ metal package PLDs.

Features

- **Narrow pulse width: 4 ns typ.**
- **High peak current: 40 A max.**
- **Compact size: 45 × 45 mm**
- **Pulse current monitor terminal available**

Applications

- **Short pulse evaluation of PLDs**

Note: Do not use on the final product.

Absolute maximum ratings ($T_a=25\text{ }^{\circ}\text{C}$, unless otherwise noted)

Parameter	Symbol	Condition	Value	Unit
Charge voltage	Vchg		90	V
Supply voltage	Vs		7 to 12	V
Operating temperature	Topr	No dew condensation ^{*1}	-20 to +70	$^{\circ}\text{C}$
Storage temperature	Tstg	No dew condensation ^{*1}	-20 to +70	$^{\circ}\text{C}$

^{*1}: When there is a temperature difference between a product and the surrounding area in high humidity environments, dew condensation may occur on the product surface. Dew condensation on the product may cause deterioration in characteristics and reliability.

Note: Exceeding the absolute maximum ratings even momentarily may cause a drop in product quality. Always be sure to use the product within the absolute maximum ratings.

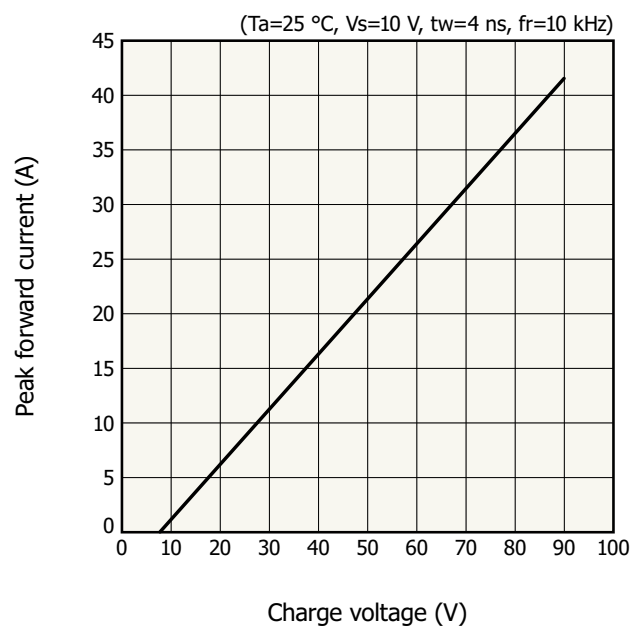
Electrical characteristics ($T_a=25\text{ }^{\circ}\text{C}$, $V_s=10\text{ V}$, $V_{chg}=90\text{ V}$)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Pulse width	tw		-	4 ± 1	-	ns
Pulse forward current	I _{fp}		0	-	40	A
Repetition frequency	fr		1	-	150	kHz
Duty ratio	DR		-	-	0.05	%
Trigger width	-	CMOS 5 V	20	-	200	ns
Voltage-current conversion factor ^{*2}	-	terminated with 50 Ω	-	22.7	-	A/V

^{*2}: Coefficient for converting the voltage at the pulse current monitor terminal to current. Reference value as the value varies depending on the mounted device.

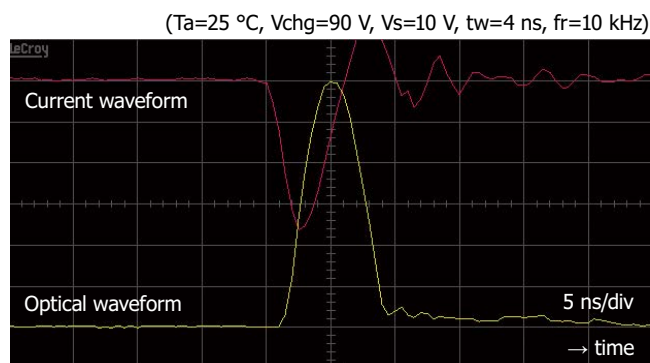
Note: The above specifications are values when PLD L11854-323-51 is mounted.

Charge voltage vs. Peak forward current (typical example: PLD L11854-323-51 mounted)

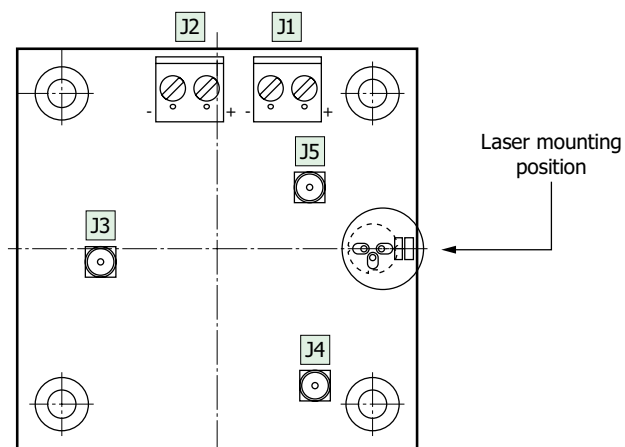


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Pulsed optical output waveform (typical example: PLD L11854-323-51 mounted)



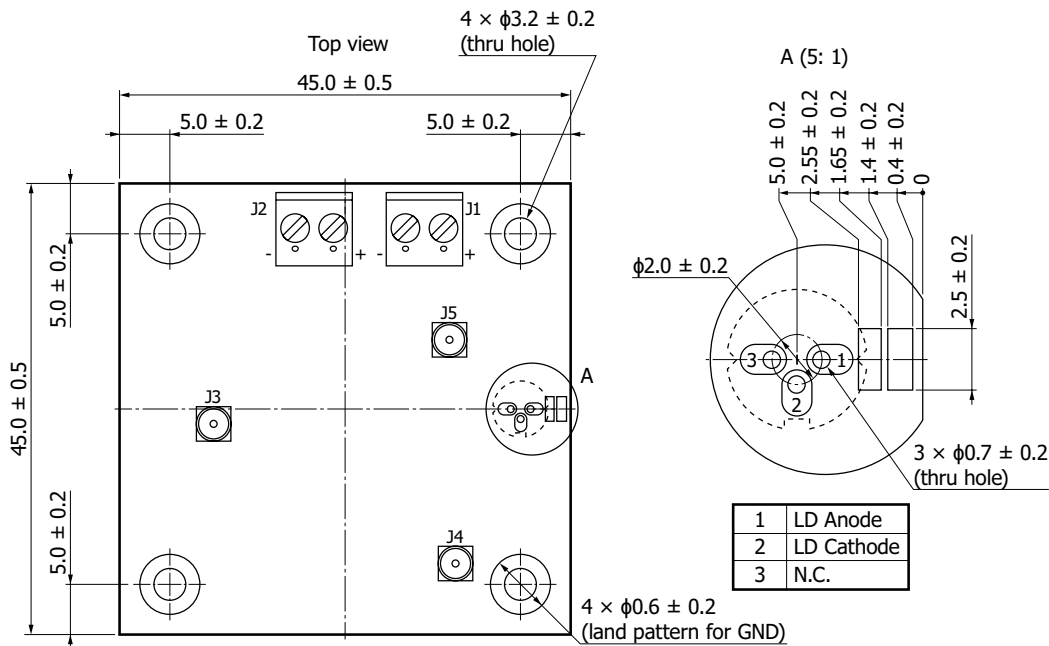
Details of connection terminals



- J1 Charge voltage input terminal: +, - (AWG16 to 28)
- J2 Supply voltage input terminal: +, - (AWG16 to 28)
- J3 Trigger input terminal: MMCX receptacle (50 Ω termination)
- J4 Gate signal monitor terminal: MMCX receptacle (50 Ω termination)
- J5 Current monitor terminal: MMCX receptacle (50 Ω termination)

KACCA0503EA

Dimensional outline (unit: mm)



Note: PLDs are sold separately. Mount PLDs so that they emit in the back surface direction.

KACCA0504EA

Related information

www.hamamatsu.com/sp/ssd/doc_en.html

Precautions

- Disclaimer
- Safety consideration / Opto-semiconductor products
- Precautions / Compound opto-semiconductors (photosensors, light emitters)

Information described in this material is current as of March 2025.

Product specifications are subject to change without prior notice due to improvements or other reasons. This document has been carefully prepared and the information contained is believed to be accurate. In rare cases, however, there may be inaccuracies such as text errors. Before using these products, always contact us for the delivery specification sheet to check the latest specifications.

The product warranty is valid for one year after delivery and is limited to product repair or replacement for defects discovered and reported to us within that one year period. However, even if within the warranty period we accept absolutely no liability for any loss caused by natural disasters or improper product use. Copying or reprinting the contents described in this material in whole or in part is prohibited without our prior permission.

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