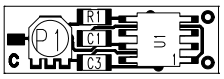
iC-WK BMST WK2D
PACKAGE SPECIFICATION

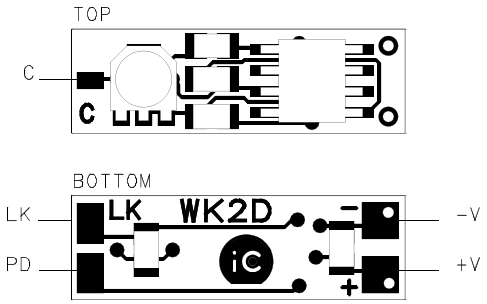
ORDERING INFORMATION

Type	Package	Options	Order Designation
iC-WK	BMST WK2D	none	iCSY WK2D
iC-WKL	BMST WK2D	none	iCSY WKL2D



20mm x 6.25mm

PIN CONFIGURATION



PIN FUNCTIONS

No.	Name	Function
1	+V	+5V Supply Voltage
2	-V	Ground
3	LK	Laserdiode Kathode
4	PD	Photodiode
5	C	Common Pin Laserdiode

ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Parameter	Conditions	Fig.	Min.	Typ.	Max.	Unit
TG1	Ta	Operating Ambient Temperature Range (extended temperature range on request)			0		50	°C
TG2	Ts	Storage Temperature Range			-20		70	°C

© 2008

/ Germany and Other Countries LASER COMPONENTS Germany GmbH Tel +49 8142 2864 - 0 info@lasercomponents.com www.lasercomponents.com
/ United Kingdom LASER COMPONENTS (UK) Ltd. Tel +44 1245 491 499 info@lasercomponents.co.uk www.lasercomponents.co.uk
/ Nordic Countries LASER COMPONENTS Nordic AB Tel +46 31 703 71 73 info@lasercomponents.se www.lasercomponents.se

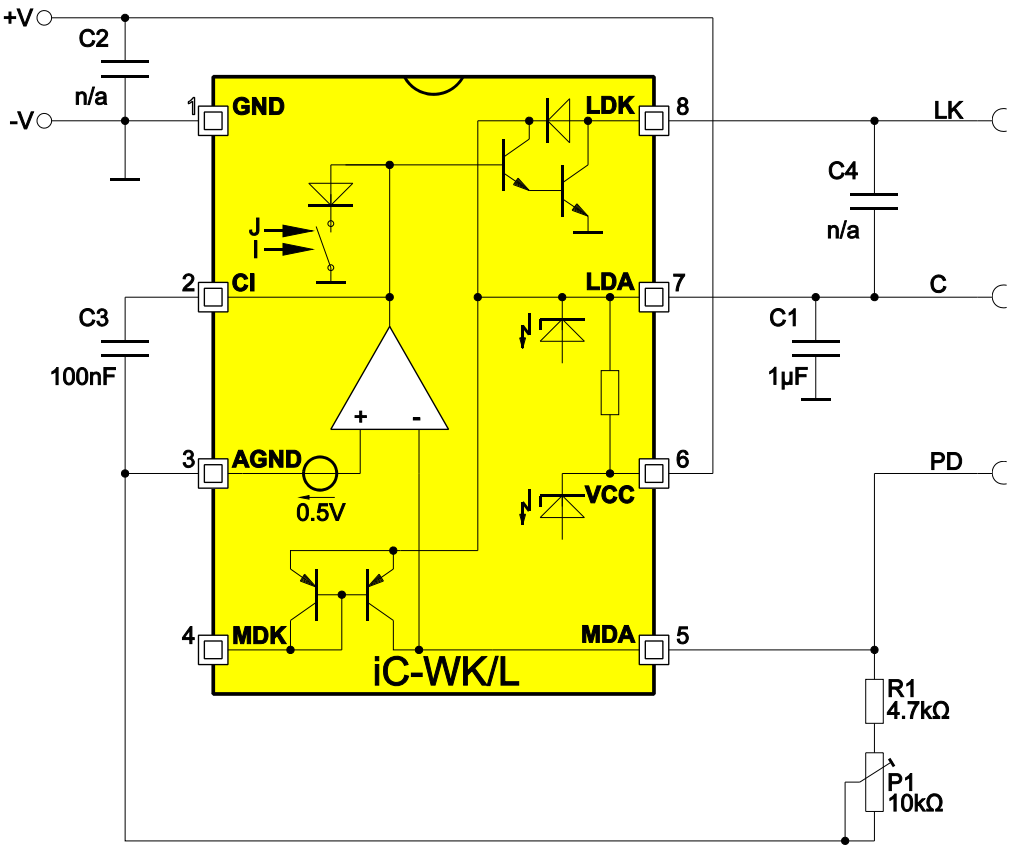
iC-WK BMST WK2D
PACKAGE SPECIFICATION

BASIC ELECTRICAL CHARACTERISTICS

Operating Conditions VCC= 5V ±5%, Tj= -0..50°C, unless otherwise noted

Item	Symbol	Parameter	Conditions	Tj °C	Fig.	Min.	Typ.	Max.	Unit
Total Device									
001	VDD	Permissible Supply Voltage				2.4		5.5	V
002	I(VDD)	Supply Current in VDD	closed control loop, I(PD)= 0, RM= 200Ω, I(LA)= 70mA	27				5.5	mA
003	ton()	Power On Delay	VCC: 0V→5V to 95% I(LD); I(LD)= 70mA, CI= 47nF I(LD)= 70mA, CI= 100nF	27				70 150	µs µs

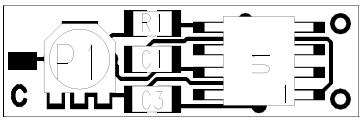
SCHEMATIC DIAGRAM



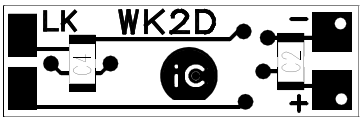
/ Germany and Other Countries LASER COMPONENTS Germany GmbH Tel +49 8142 2864 - 0 info@lasercomponents.com www.lasercomponents.com
/ United Kingdom LASER COMPONENTS (UK) Ltd. Tel +44 1245 491 499 info@lasercomponents.co.uk www.lasercomponents.co.uk
/ Nordic Countries LASER COMPONENTS Nordic AB Tel +46 31 703 71 73 info@lasercomponents.se www.lasercomponents.se

iC-WK BMST WK2D
PACKAGE SPECIFICATION

DEVICE ASSEMBLY



TOP



BOTTOM

dra_wk2d_pack_assy

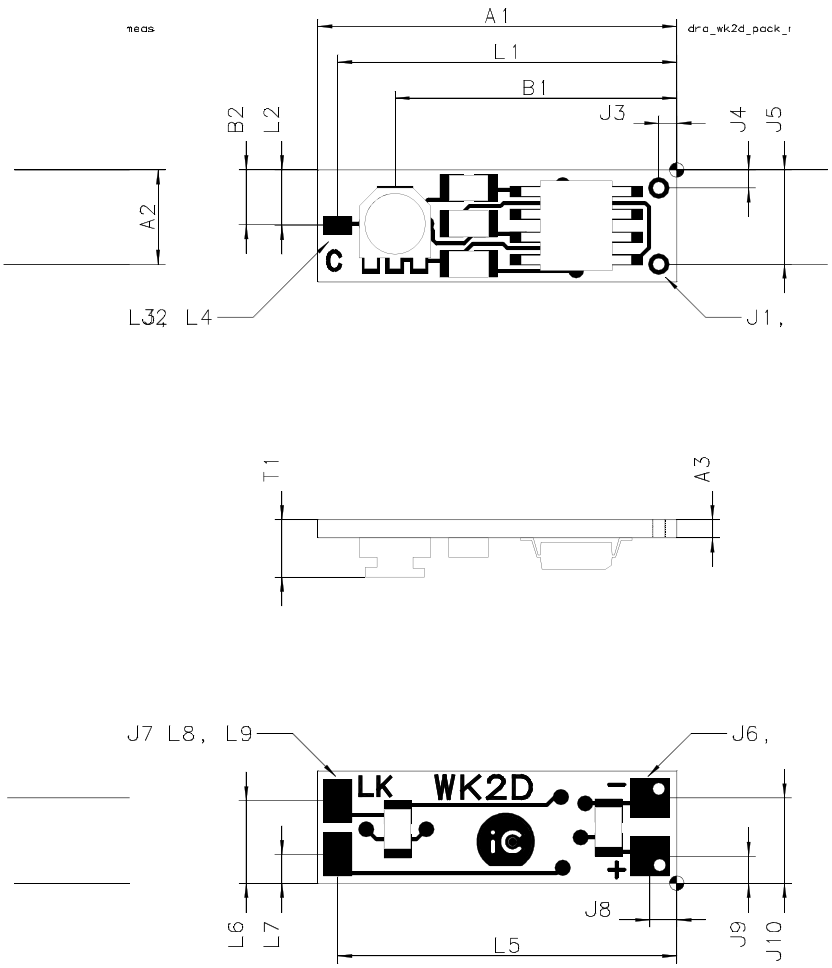
ASSEMBLY PART LIST

Item	Name	Device	Type/Value	Tolerance	Material	Comments	Package	Placement
01	U1	Laser Driver	iC-WK/L				SO8	TOP
04	R1	Resistor	4.7k	1%			RSMD0805	TOP
05	C1	Capacitor	1µF	10%			CSMD0805	TOP
06	C2	Capacitor	n. a.				CSMD0805	BOT
07	C3	Capacitor	100nF	20%			CSMD0805	TOP
08	C4	Capacitor	n. a.				CSMD0805	BOT
15	P1	Trimmer	10k	25%			meggit Typ 3165	TOP

/ Germany and Other Countries LASER COMPONENTS Germany GmbH Tel +49 8142 2864 – 0 info@lasercomponents.com www.lasercomponents.com
/ United Kingdom LASER COMPONENTS (UK) Ltd. Tel +44 1245 491 499 info@lasercomponents.co.uk www.lasercomponents.co.uk
/ Nordic Countries LASER COMPONENTS Nordic AB Tel +46 31 703 71 73 info@lasercomponents.se www.lasercomponents.se

iC-WK BMST WK2D
PACKAGE SPECIFICATION

PHYSICAL DIMENSIONS (given in mm)



/ Germany and Other Countries LASER COMPONENTS Germany GmbH Tel +49 8142 2864-0 info@lasercomponents.com www.lasercomponents.com
/ United Kingdom LASER COMPONENTS (UK) Ltd. Tel +44 1245 491 499 info@lasercomponents.co.uk www.lasercomponents.co.uk
/ Nordic Countries LASER COMPONENTS Nordic AB Tel +46 31 703 71 73 info@lasercomponents.se www.lasercomponents.se

iC-WK BMST WK2D
PACKAGE SPECIFICATION

DIMENSION TABLE

Item	Parameter	Comments	Min.	Typ.	Max.	Tolerance	Unit
	Substrate						
A1	Outline X			20.00		± 0.4	mm
A2	Outline Y			6.25		± 0.15	mm
A3	Substrate Thickness (incl CU and Solder Stop)		0.9		1.3		mm
	Trimmer Placement						
B1	Trimmer Position vs. Reference X	Axis of Trimmer		15.7		± 0.6	mm
B2	Trimmer Position vs. Reference Y	Axis of Trimmer		3.0		± 0.6	mm
	Power Connector						
J1	Drill Diameter			0.7		-0 / +0.1	mm
J2	Pad Diameter			1.2		± 0.05	mm
J3	Drill Position vs. Reference X (-V, +V)			1.0		± 0.3	mm
J4	Drill Position vs. Reference Y (+V)			1.0		± 0.15	mm
J5	Drill Position vs. Reference Y (-V)			5.25		± 0.15	mm
J6	Pad Size X (-V,+V)			2.2		± 0.05	mm
J7	Pad Size Y (-V,+V)			2.2		± 0.05	mm
J8	Center Pad vs. Reference X (-V, +V)			1.5		± 0.3	mm
J9	Center Pad vs. Reference Y (+V)			1.5		± 0.15	
J10	Center Pad vs. Reference Y (-V)			4.75		± 0.15	
	Laser Connector						
L1	Center Pad vs. Reference X (Common Pin)			18.8		± 0.3	mm
L2	Center Pad vs. Reference Y (Common Pin)			3.1		± 0.15	mm
L3	Pad Size X (Common Pin)			1.6		± 0.05	mm
L4	Pad Size Y (Common Pin)			1.0		± 0.05	mm
L5	Center Pad vs. Reference X (LA, PD)			18.8		± 0.3	mm
L6	Center Pad vs. Reference Y (LA)			4.6		± 0.15	mm
L7	Center Pad vs. Reference Y (PD)			1.6		± 0.15	mm
L8	Pad Size X (LA, PD)			1.6		± 0.05	mm
L9	Pad Size Y (LA, PH)			2.4		± 0.05	mm
	Thickness						
T1	Overall Thickness		3.1				mm

/ Germany and Other Countries LASER COMPONENTS Germany GmbH Tel +49 8142 2864 - 0 info@lasercomponents.com www.lasercomponents.com
/ United Kingdom LASER COMPONENTS (UK) Ltd. Tel +44 1245 491 499 info@lasercomponents.co.uk www.lasercomponents.co.uk
/ Nordic Countries LASER COMPONENTS Nordic AB Tel +46 31 703 71 73 info@lasercomponents.se www.lasercomponents.se

iC-WK BMST WK2D
PACKAGE SPECIFICATION

REVISION HISTORY

Rev	Notes	Pages affected
A0	Initial version	all
A1	iC-WKL added	1-3
B1	Substrate Thickness A3 Max. value changed from 1.1 to 1.3	5

GENERAL HANDLING INSTRUCTIONS

Board micro system modules are not subject to dry pack delivery and are not intended for reflow soldering.

This specification is for a newly developed product. iC-Haus therefore reserves the right to modify data without further notice. Please contact us to ascertain the current data. The data specified is intended solely for the purpose of product description and is not to be deemed guaranteed in a legal sense. Any claims for damage against us - regardless of the legal basis - are excluded unless we are guilty of premeditation or gross negligence.
We do not assume any guarantee that the specified circuits or procedures are free of copyrights of third parties.
Copying - even as an excerpt - is only permitted with the approval of the publisher and precise reference to source.

/ Germany and Other Countries LASER COMPONENTS Germany GmbH Tel +49 8142 2864 - 0 info@lasercomponents.com www.lasercomponents.com
/ United Kingdom LASER COMPONENTS (UK) Ltd. Tel +44 1245 491 499 info@lasercomponents.co.uk www.lasercomponents.co.uk
/ Nordic Countries LASER COMPONENTS Nordic AB Tel +46 31 703 71 73 info@lasercomponents.se www.lasercomponents.se