

CERLED[®]

Ceramic Chip SMD

SMD - Wide-Viewing Angle
CR 50 IRH high-power-infrared



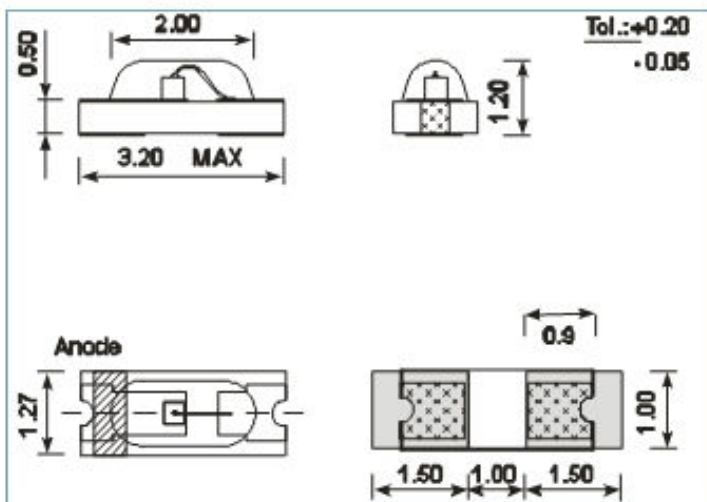
Description

The solder pads provide an excellent heat sink. For multi-chip arrays just choose 2 or more CERLEDs and mount them side by side or even antiparallel. Small true chip - LED to build custom configurations.

Available on special order in 8 mm blister tape or solid strips of up to 12 pcs with a true pitch of 1.27 mm.

Features and Benefits

- ▶ Solid state ceramic chip
- ▶ Surface mounting device
- ▶ High thermal conductivity
- ▶ Superior light uniformity
- ▶ End - to - end and side - to - side stackable down to a pitch of 1.3 mm
- ▶ Solder pads conform with Mil-Std 883 B



Maximum Ratings at 25° C

Power dissipation	P _{tot}	130 mW
Derating linear		2.4 mW / ° C
Peak forward current	I _{FSM} (10 μs)	800 mA
Continuous forward current	I _F	75 mA
Junction temperature	T _J	120° C
Storage temperature	T _{st}	-25° C to 120° C
Operating temperature	T _{op}	-25° C to 80° C
Soldering temperature	T _{sold} (10 s)	240° C

Adequate heat sink is required. Derating must be observed to maintain junction temperature below maximum. Please note our recommended solder profile at www.excelitas.com.

Optical and Electronic Characteristics at 25° C

I_F = 20 mA, ambient temperature = 25° C

	min	typ	max	unit
Radiant power (50 mA)	5.1	10.6		mW
Radiant power (20 mA)	2.2	4.5		mW
Peak emission wavelength		870		nm
Spectral half bandwidth		50		nm
Forward voltage (20 mA)		1.35	1.7	V
Reverse leakage current			100	μA
Reverse voltage	8			V
Rise/fall - time		1500 / 800		ns
Light emission angle		160°		Degree

Note: according IEC 60825-1 (EN60825):

LED Radiation

Do not view directly with optical instruments.

Figure 1

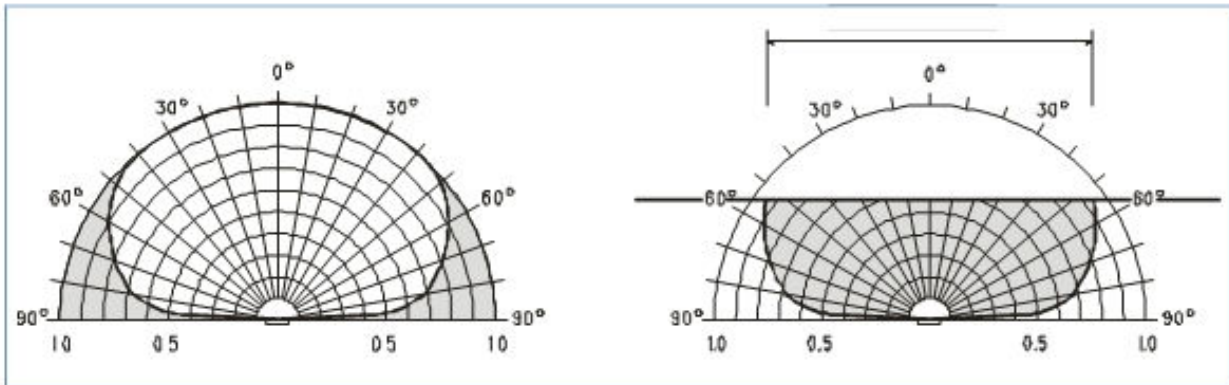


Figure 2
Suggested Mounting Method

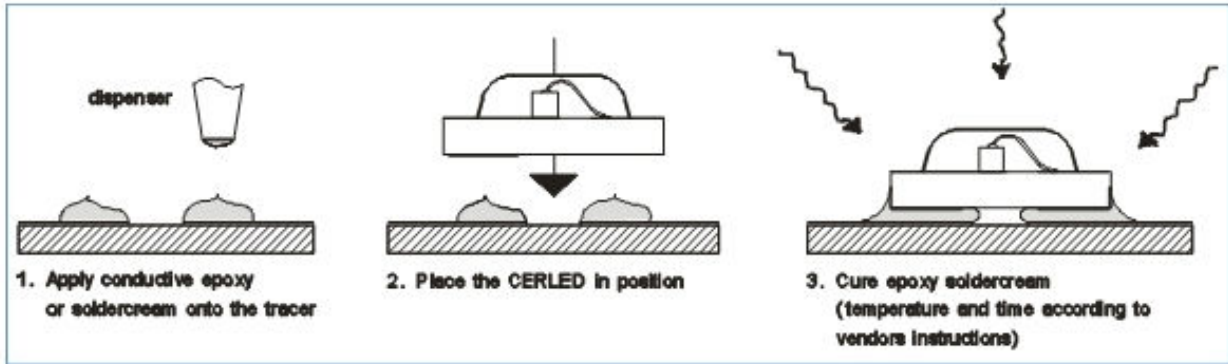


Figure 3
Special Packaging Standard 8 mm Blister Tape

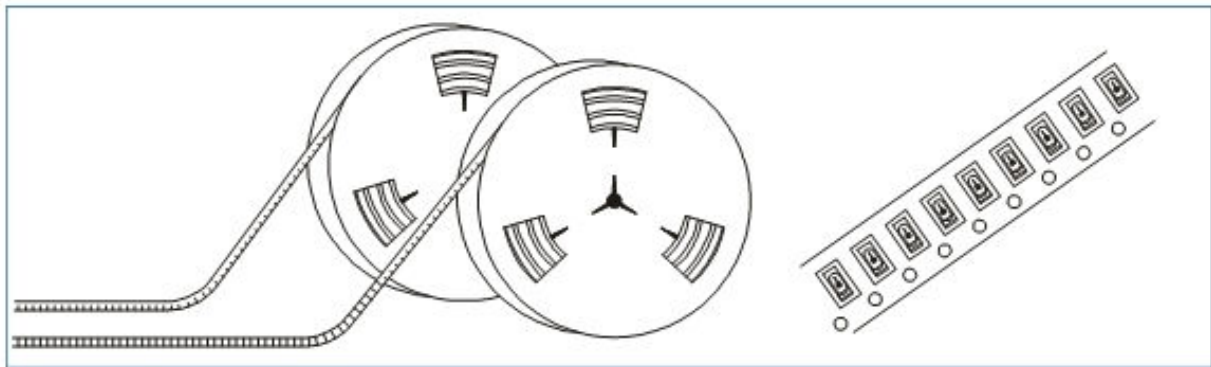
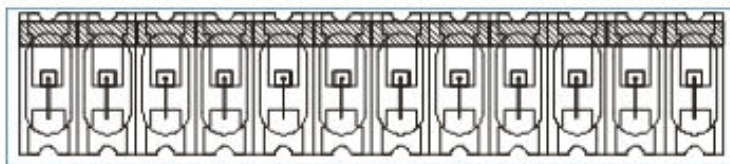


Figure 4
Arrays: Available in strips up to 12 CERLEDs with a max. pitch tolerance in spacing and linearity of ± 0.01 mm between chip centers.



Code to order strips:
CR 50 irh - XX (no. of LEDs)

Excelitas Technologies
European Customer
Support for LED Solutions
Luitpoldstrasse 6
85276 Pfaffenhofen, Germany
Telephone: (+49)8441-8917-0
Fax: (+49)8441-71910
generalinquiries@excelitas.com

European Headquarters
Wenzel-Jaksch-Strasse 31
65199 Wiesbaden, Germany
Telephone: (+49)611-492-247
Fax: (+49)611-492-170

North America
Customer Support Hub
22001 Dumberry Road
Vaudreuil-Dorion, Quebec
Canada J7V 8P7
Telephone: (+1) 450-424-3300
(+1) 866-574-6786 (toll-free)
Fax: (+1) 450-424-3345

Asia Customer Service Hub
47 Ayer Rajah Crescent #06-12
Singapore 139947
Telephone: (+65)6775-2022
(+65)67704-366
Fax: (+65)6775-1008

EXCELITAS
TECHNOLOGIES

For a complete listing of our global offices, visit www.excelitas.com

©2011 Excelitas Technologies Corp. All rights reserved. The Excelitas logo and design are registered trademarks of Excelitas Technologies Corp. CERLED® is a trademark of Excelitas Technologies Corp. or its subsidiaries, in the United States and other countries. All other trademarks not owned by Excelitas Technologies or its subsidiaries that are depicted herein are the property of their respective owners. Excelitas reserves the right to change this document at any time without notice and disclaims liability for editorial, pictorial or typographical errors.
600069_01 DTS1005