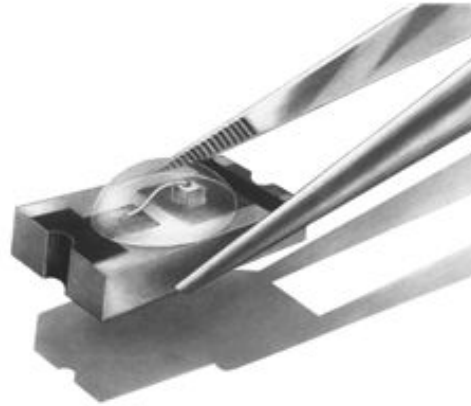


CERLED[®]

Ceramic Chip SMD

SMD - Wide-Viewing Angle
CR 10 DE Silicon Photodiode



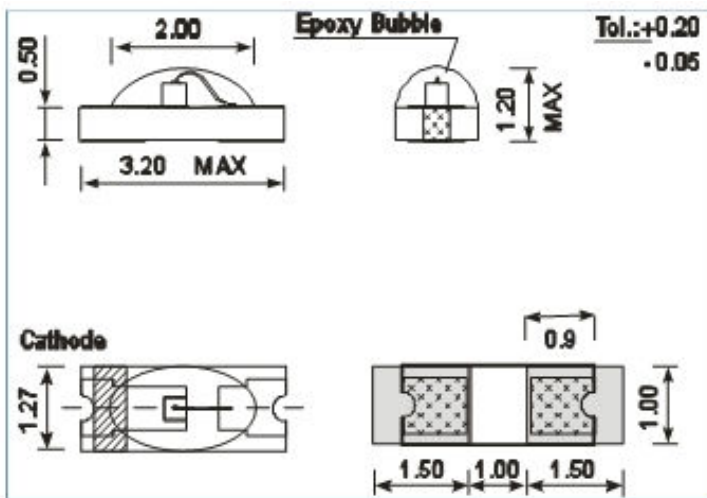
Description

The solder pads provide an excellent heat sink. For multi-sensors just choose 2 or more CERLEDs. The components can be supplied with a special epoxy in order to filter ambient daylight (Order code: CR10DE- DLF).

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
- ▶ 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

Storage temperature	T _{st}	-25° C to 120° C
Operating temperature	T _{op}	-25° C to 85° C
Soldering temperature	T _{sold} (10 s)	240° C

Optical and Electronic Characteristics at 25° C

	min	typ	max	unit	conditions
Reverse breakdown (V _{BR/R})	50			V	I _R = 5 μA, E _E = 0 mW/cm ²
Light reverse current (I _{sc})	2			μA	V _R = 5 V, E _E = 5 mW/cm ²
Reverse dark current (I _R)			0.5	nA	V _R = 5 V, E _E = 0 mW/cm ²
Sensitivity (S)		0.5		A/W	V _R = 10 V, λ = 880 nm
Turn on / turn off time (t _{on} / t _{off})		3		μs	V _R = 10 V, R _L = 50 Ω, λ = 880 nm
Junction capacitance (C _j)			2.5	pF	V _R = 20 V, E _E = 0 mW/cm ² , f = 1 MHz
Forward voltage (V _F)		1.3	1.7	V	I _F = 100 mA
Radiant sensitive area (A)		0.31		mm ²	

Figure 1

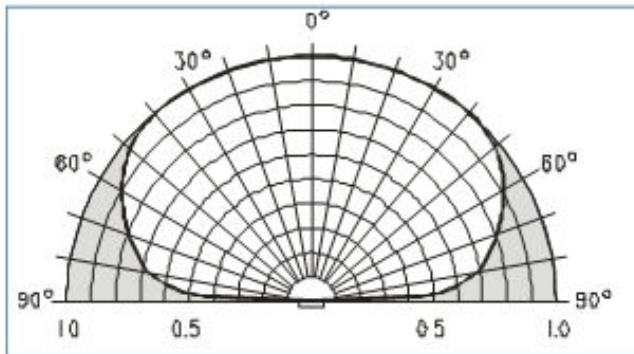


Figure 2

Suggested Mounting Method

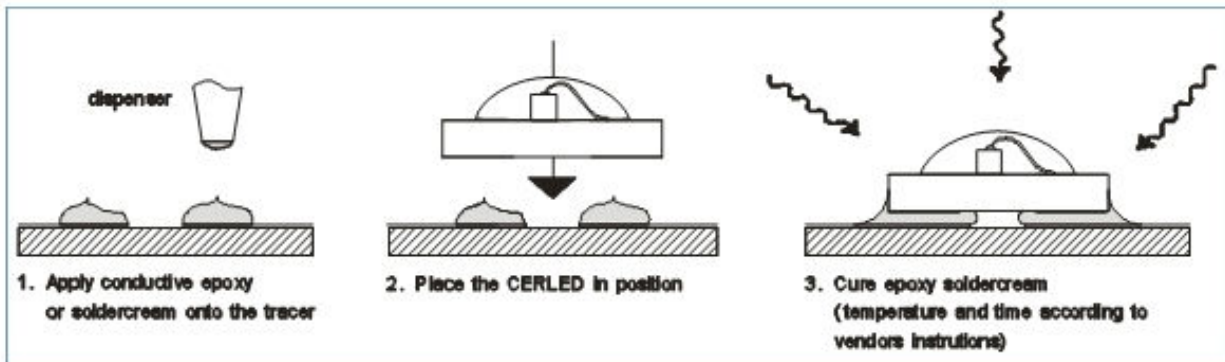


Figure 3

Special Packaging Standard 8 mm Blister Tape

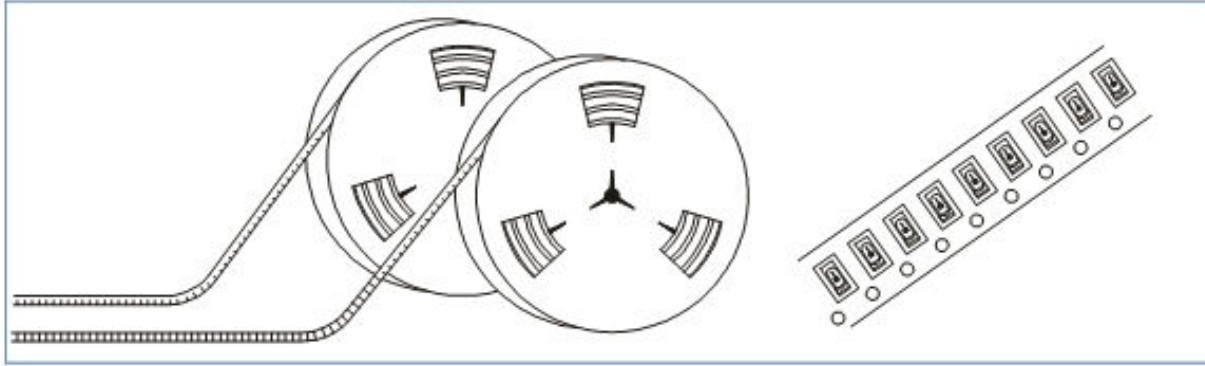
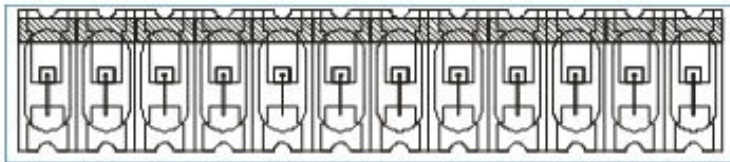


Figure 4

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 10 de - 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 Corp. 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.
600056_01 DTS1005