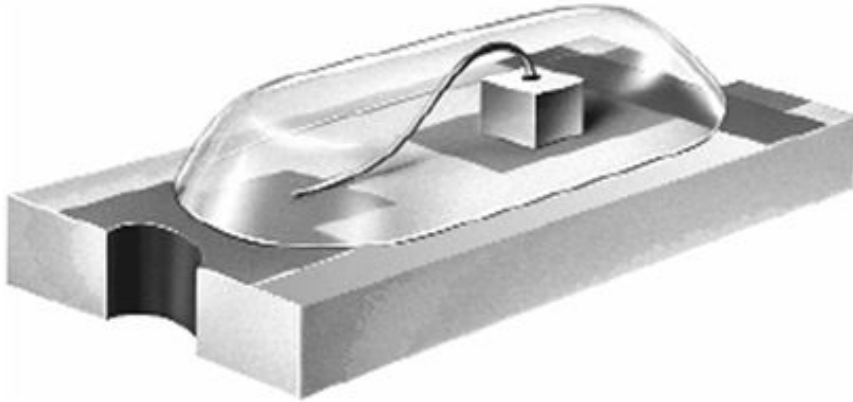


CERLED[®]

Ceramic Chip SMD

SMD - Wide-Viewing Angle
CR 50 TE Photo Transistor



Description

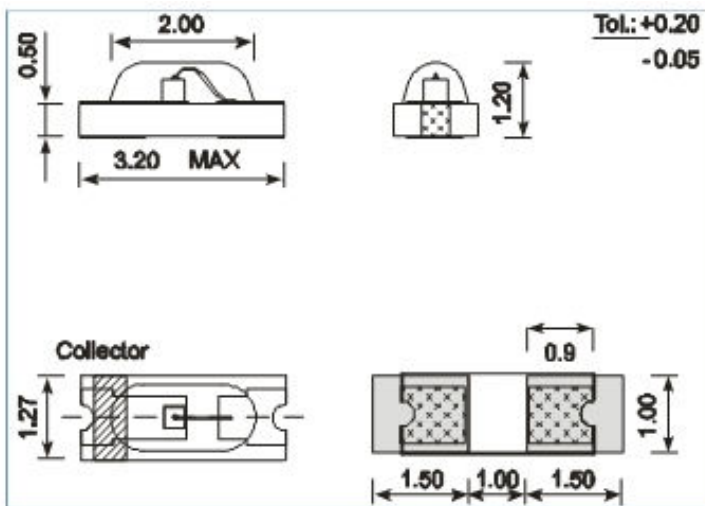
The solder pads provide an excellent heat sink. For multi-sensors just choose 2 or more CERLEDs. Clear epoxy lens.

Special Type (CR50TE-DLF) with daylight filter on request.

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 80° C |
| Soldering temperature | T _{solid} (10 s) | 240° C |

Optical and Electronic Characteristics at 25° C

| | min | typ | max | unit | conditions |
|--|------|------|------|-----------------|---|
| Collector emitter breakdown voltage (V _{CE}) | 40 | | | V | I = 100 μA |
| Dark current (I _{CEO}) | | | 400 | nA | V _{CE} : 20V, E _v : 0Lx |
| Saturation voltage (V _{CEsat}) | | | 0.3 | V | I _c : 2 mA, I _b : 1000 μA |
| Wavelength of max. sensitivity (λ. max) | | 900 | | nm | |
| Photo current rise / fall time (t _{on} / t _{off}) | | 4 | | μs | R _L = 50 Ω, f = 1 MHz |
| Photosensitive area (A) | | 0.18 | | mm ² | |
| Power dissipation (P _{tot}) | | 200 | | mW | |
| Current gain (h _{FE}) | 1000 | | 1800 | | V _{CE} = 5V, I _B = 3 μA |

Figure 1

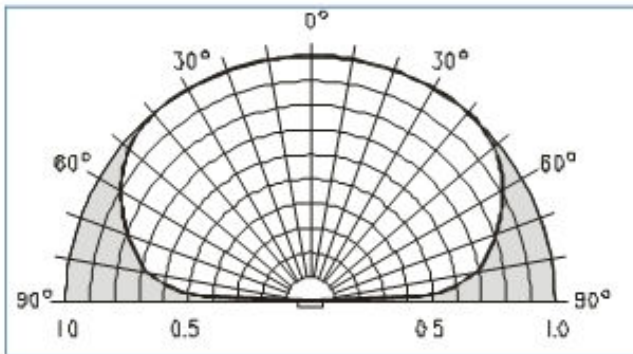


Figure 2

Suggested Mounting Method

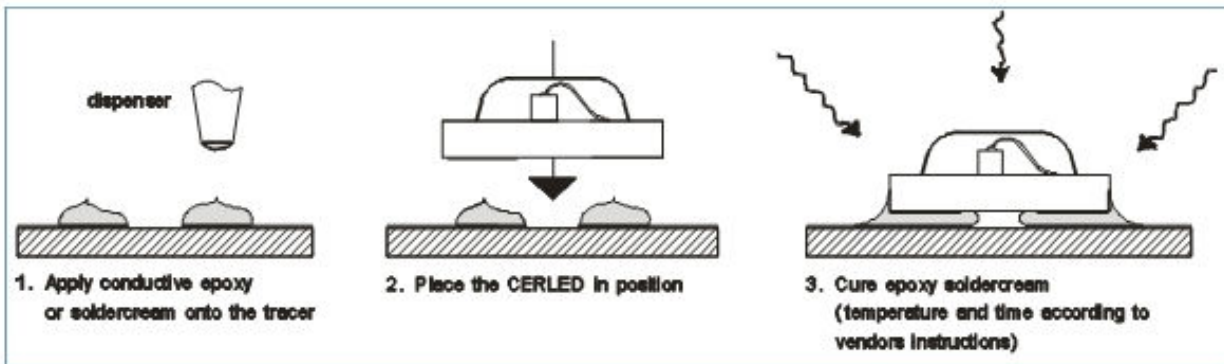


Figure 3

Special Packaging Standard 8 mm Blister Tape

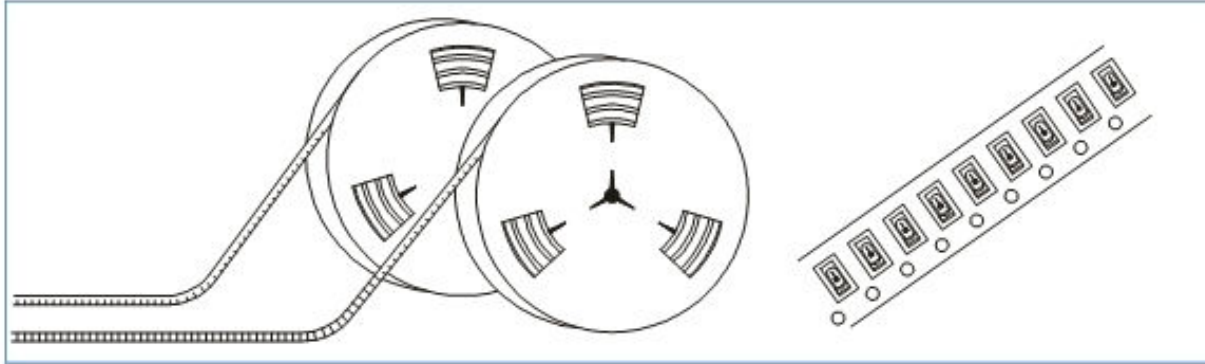
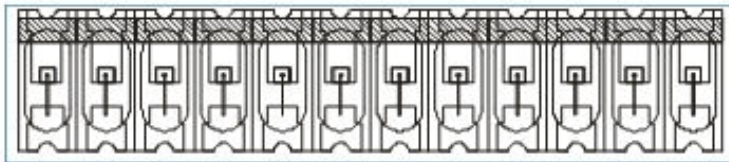


Figure 4

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 te - 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



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.
600050_01 DTS1005