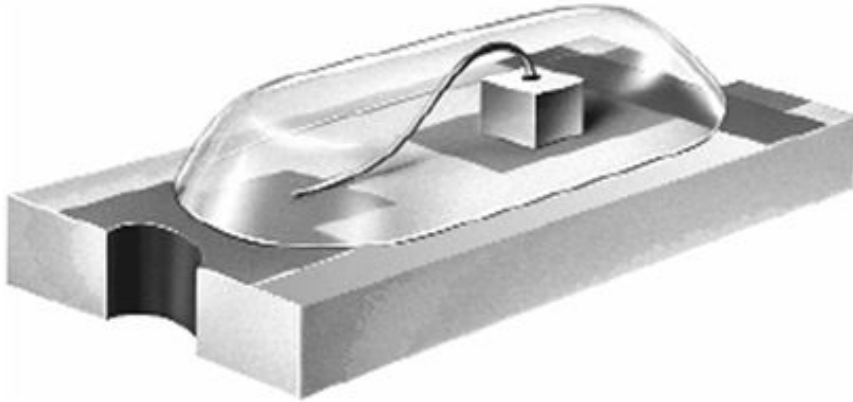


# CERLED<sup>®</sup>

## Ceramic Chip SMD

SMD - Wide-Viewing Angle  
CR 50 R orange red



### Description

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

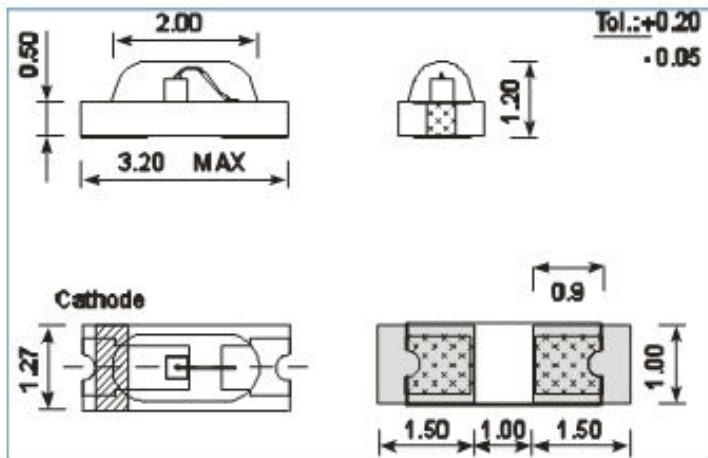
Available on special order in 8 mm blister tape or solid strips of up to 12 pcs with a true pitch of 1.27 mm.

The CR 50 R has a clear red coloured epoxy lens.

Also available with diffused lens (CR 52 R).

### 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 <sub>Tot</sub>	130 mW
Derating linear		2.4 mW / ° C
Peak forward current	I <sub>FSM</sub> (10 μs)	800 mA
Continuous forward current	I <sub>F</sub>	50 mA
Junction temperature	T <sub>J</sub>	120° C
Storage temperature	T <sub>st</sub>	-25° C to 120° C
Operating temperature	T <sub>op</sub>	-25° C to 80° C
Soldering temperature	T <sub>sold</sub> (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](http://www.excelitas.com).

### Optical and Electronic Characteristics at 25° C

I<sub>F</sub> = 20 mA, ambient temperature = 25° C

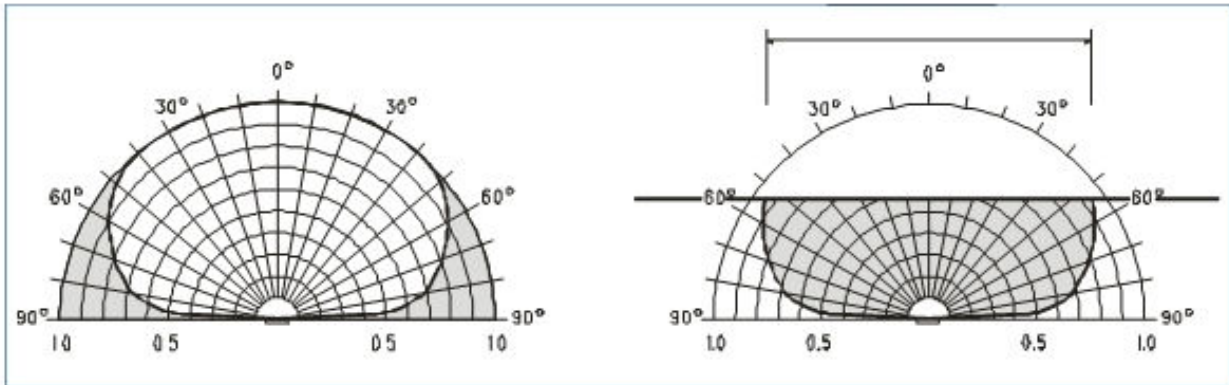
	min	typ	max	unit
Luminous intensity	6	10		mcd
Peak emission wavelength		630		nm
Spectral half bandwidth		40		nm
Forward voltage		2.0	2.6	V
Reverse leakage			100	μA
Reverse voltage	5			V
Light emission angle		180°		Degree

Note: according IEC 60825-1 (EN60825):

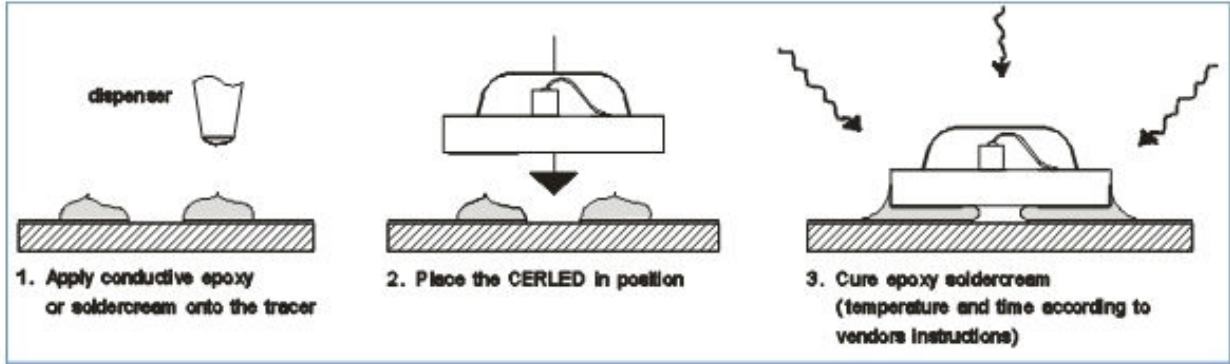
LED Radiation

Do not view directly with optical instruments.

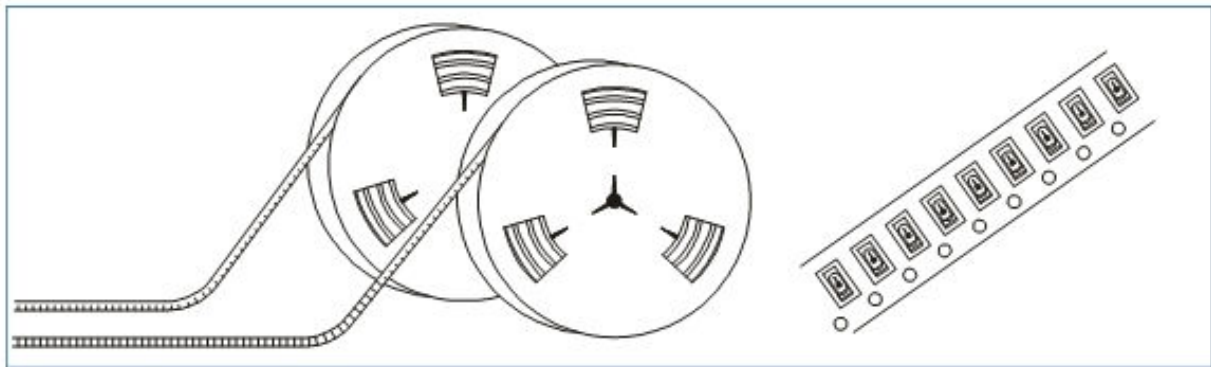
Figure 1



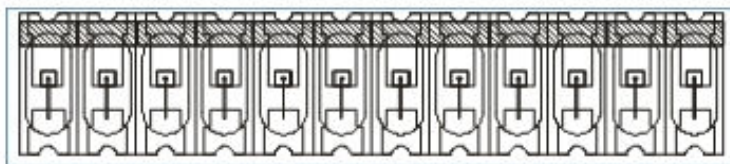
**Figure 2**  
Suggested Mounting Method



**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  $\pm 0.01$  mm between chip centers.



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

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