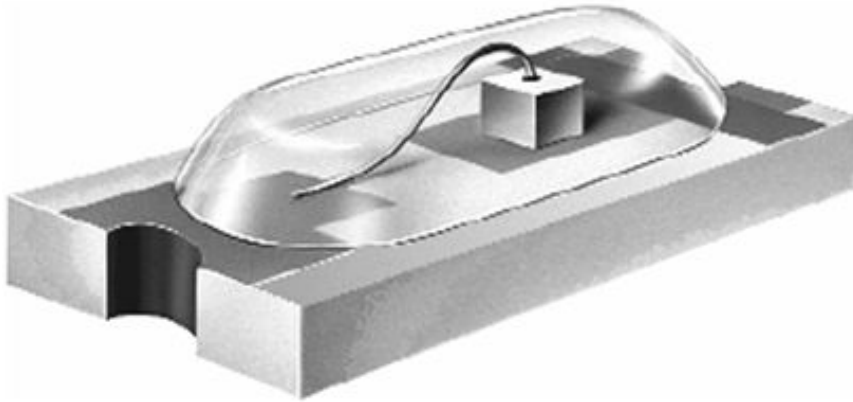


CERLED[®]

Ceramic Chip SMD

SMD - Wide-Viewing Angle
CR 50 DE Silicon Photodiode

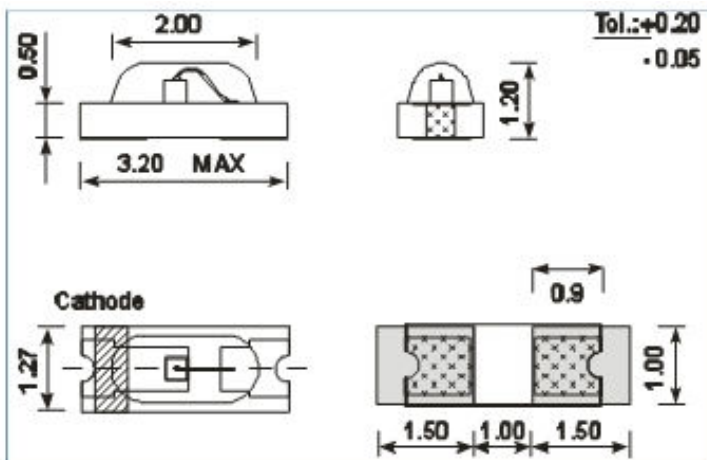


Description

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: CR50DE- 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

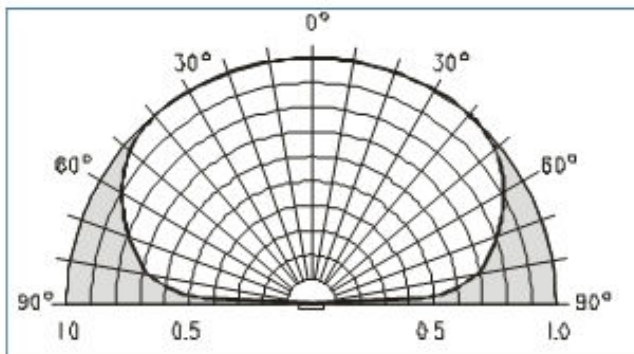


Figure 2

Suggested Mounting Method

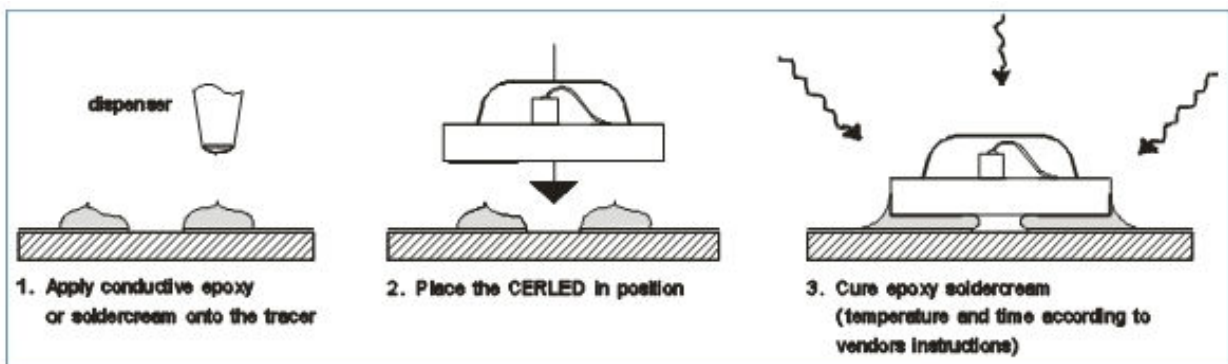


Figure 3

Special Packaging Standard 8 mm Blister Tape

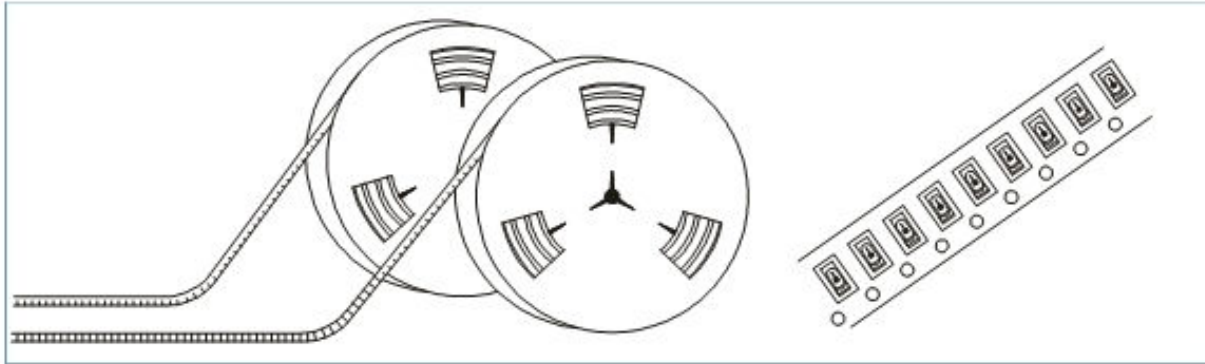
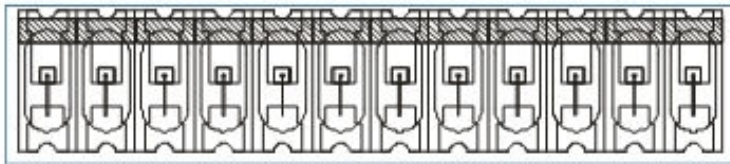


Figure 4

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 50 de - XX (no. of LEDs)

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