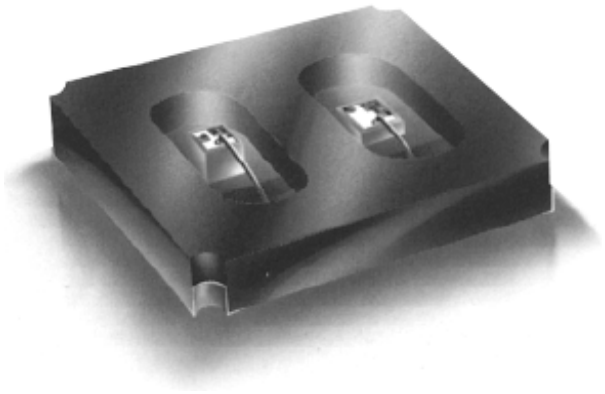
CERLED®

Ceramic Chip SMD

SMD – Reflective Sensor
CRS 20

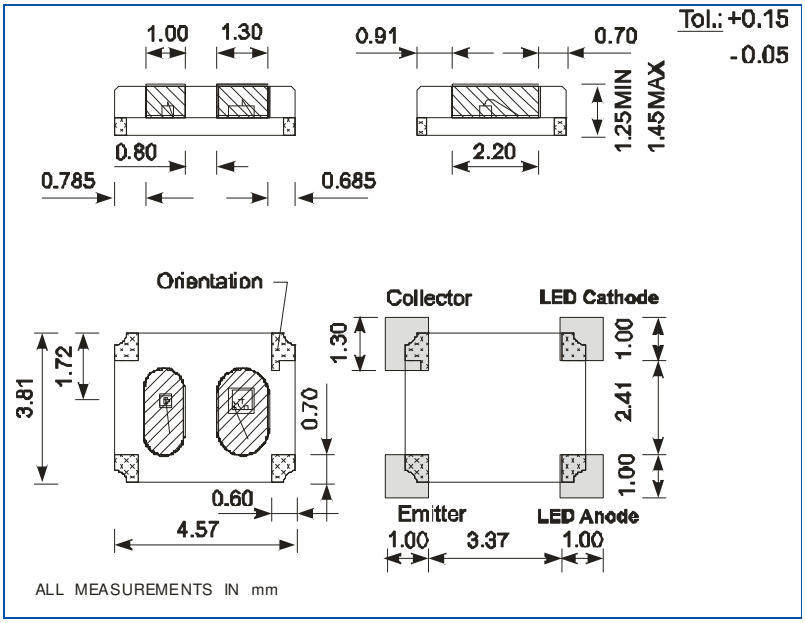
LED Solutions™ by PerkinElmer.

DATASHEET



Description

This opto device is specially designed for all applications where the space is very limited and a highly reliable product is needed. Especially for hybrid and SMT.
The solder pads are a very good heat sink, so that high power dissipation is achievable.
Best reflective distance: 0.9 mm (paper).



Features and Benefits

- Surface mounting device
- Complete ceramic housing
- High temperature range
- Miniature size
- Solder pads conform with Mil-Std. 883 B

PerkinElmer® precisely.

Maximum Ratings at 25° C

Total power dissipation	P_V	200 mW
Storage temperature	T_{stg}	-25° C to 125° C
Operating temperature	T_{op}	-25° C to 85° C
Soldering temperature	T_{sold} (10 s)	240° C

Note: During solder process the component must not be held or fixed mechanically on the upper part.

Emitter

Wavelength	λ	950 nm
Reverse voltage	V_R	5 V
Continuous forward current	I_F	60 mA
Pulse current (10usec)	$I_{Peak\ 10\ \mu sec}$	800 mA
Forward voltage	V_F	1.2 … 1.4 V

Detector

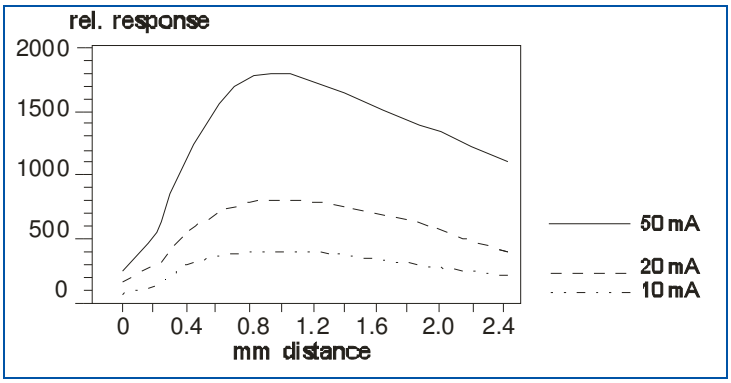
Collector emitter breakdown	V_{CEO}	40 V (I = 100 µA)
Emitter collector breakdown	V_{ECO}	4.5 V (I = 100 µA)
Dark current	I_{CEO}	400 nA (V = 20 V)
Saturation voltage	$V_{CE\ sat}$	0.3 V (I_B = 1 mA) (I_C = 2 mA)
Rise / Fall time (f = 1 Mhz)	t_{on} / t_{off}	10 µs (R = 50 Ω)

Note: according IEC 60825-1 (EN60825):

LED Radiation

Do not view directly with optical instruments.

Figure 1



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