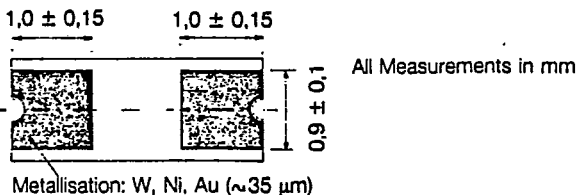
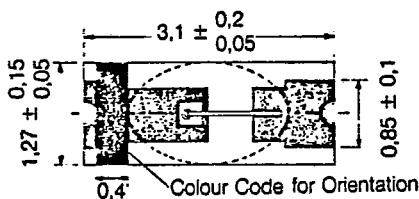
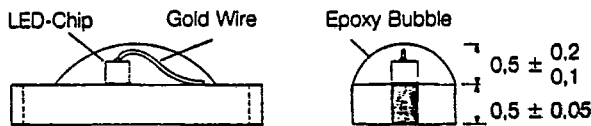




STETTNER & CO.
Electronic Division
D 8560 Lauf

Telefon 09123/181-1
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Telex 623385 stco d
Ceramic Chip Leds CERLED[®]

CERAMIC CHIP LED



Orientation:

- SR and SIR Anode
- TE Collector
- all other types Cathode

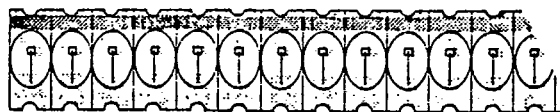
Delivery form

loose: min. ordering quantity 100 pcs
8mm blister tape: min. ordering quantity 3000 pcs

A detailed description of tape packing can be found in our technical delivery specification TLV 037.

Arrays

CERLEDs are also available in solid strips up to 20 LEDs on request. Different colours within one solid strip are possible.



Special Features

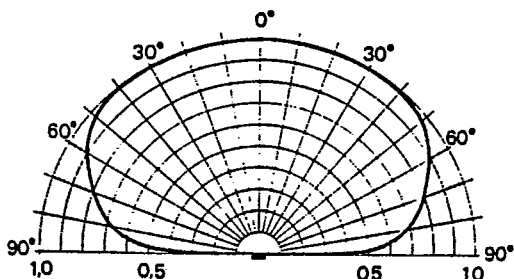
- solid state ceramic chip
- high power and thermal absorption
- superior light uniformity over 180° radiation
- can be mounted side by side
- solder pads conform to MIL-STD 833 B
- can be supplied on 8mm blister tape
- solid strips with up to 20 LEDs possible

Applications

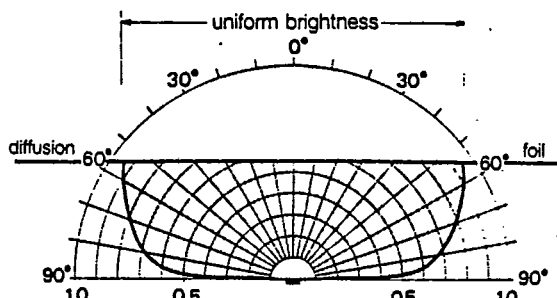
- SMD and Hybrid technology
- custom-made displays
- backlight applications

Viewing angle

approx. 180° viewing angle (50% I_e rel)



Backlight application





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Ceramic Chip Leds CERLED^R

Typical characteristics

Type		Colour	λ_p	I_v	U_F (20mA)
clear lens	diffused lens		nm	mcd	V
CR 10 SR	CR 12 SR	super red	665	20,0	2,0
CR 10 NR	CR 12 NR	red	655	5,0	2,6
CR 10 R	CR 12 R	orange red	630	6,0	2,6
CR 10 A	CR 12 A	amber	605	5,3	2,6
CR 10 Y	CR 12 Y	yellow	585	5,5	2,5
CR 10 YG	CR 12 YG	yellow-green	568	7,0	2,3
CR 10 G	CR 12 G	green	558	4,8	2,4
				Φ_e	
CR 10 IR	-	infrared	940	4,5mW	1,6
CR 10 SIR*	-	infrared	880	12mW	2,2
CR 10 TE*	-	photo transistor	-	-	-
CR 10 DE*	-	photo diode	-	-	-

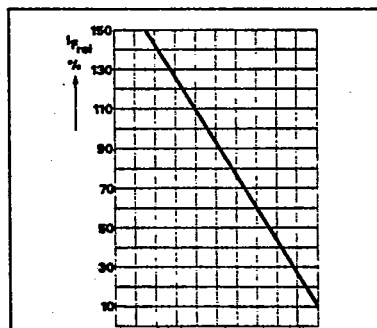
* on request

General data (maximum values at 25°C)

power dissipation	130 mW
derating linear	2,7 mW/°C
reverse voltage	5,0 V, 10 V (CR 10 IR)
leakage current	100 μ A
continuous forward current	75 mA
peak forward current for 10 μ s	800 mA
operating temperature range	-25°C ... +80°C
storage temperature range	-25°C ... +125°C
junction temperature	120°C
soldering temperature	10s bei/at 250°C

Derating

Maximum permissible forward current
versus ambient temperatur





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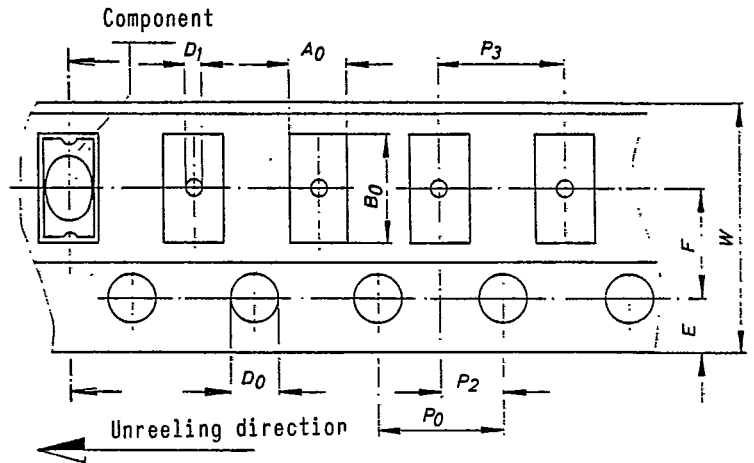
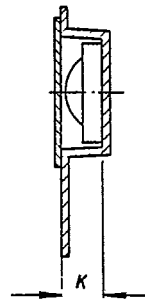
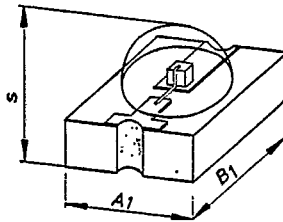
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TLV 037 E

Taped CERLED® Chip LEDs

Dimensions and tolerances in mm

Blister tape



Type	B ₁ x A ₁ x s
CERLED CR10/CR12	3,1 x 1,27 x 1

Dimension tolerances:

- A₁ +0,2/-0,05
- B₁ +0,15/-0,05
- s +0,25/-0,15

Ref.	Type		Tolerance
	CERLED	CR 10 / CR 12	
A ₀		1,9	± 0,1
B ₀		3,5	± 0,1
K		1,2	± 0,1
D ₀		1,5	+ 0,1 / -0
D ₁		1,0	± 0,1
P ₀		4,0	± 0,1
P ₂		2,0	± 0,1
P ₃		4,0	± 0,1
W		8,0	± 0,2
E		1,75	± 0,1
F		3,5	± 0,05

Technical data:

Packing quantity: 3000 pieces/reel

The components are loose in the compartment.

Orientation of components:

Anode to sprocket hole side

Pull-off strength of the fixing tape against unreeling direction: ≤ 1 N

Leader: min. 150 mm

Trailer: min. 50 mm

Packing error: ≤ 0,25 %

Length of tape: ≥ 12,4 m

Available types

Type		Luminous colour	Luminous intensity I _F = 20 mA, 25 °C typ. (mcd)	Emission peak wavelength (nm)
Clear lens	Diffused lens			
CR 10 SR	CR 12 SR	super red	20,0	665
CR 10 NR	CR 12 NR	red	5,0	655
CR 10 R	CR 12 R	orange red	6,0	630
CR 10 A	CR 12 A	amber	5,3	605
CR 10 Y	CR 12 Y	yellow	5,5	585
CR 10 YG	CR 12 YG	yellow-green	7,0	568
CR 10 G	CR 12 G	green	4,8	558
CR 10 IR	-	infrared	φ _e	940
CR 10 SIR	-	infrared	4,5mW 12mW	880
CR 10 TE	-	photo transistor	-	-
CR 10 DE	-	photo diode	-	-