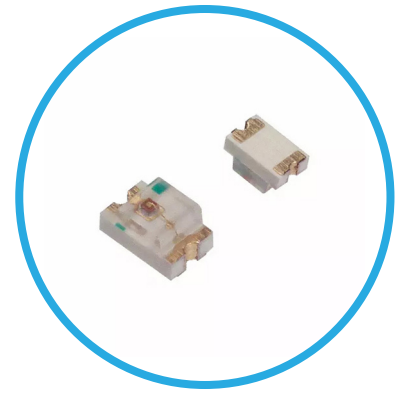




CMD17-21 Series

0805 Package Size

Surface Mount Technology LED



SMD LED available in three colors. Available in clear and diffused lens options and a 140 degree viewing angle.



Application

- Wearable and Portable Devices
- Automotive Features
- Navigations Systems
- Home and Smart Appliance
- Backlit Keypads
- Medical Devices
- Health Care Application
- Industrial Control Systems
- Status Indicator

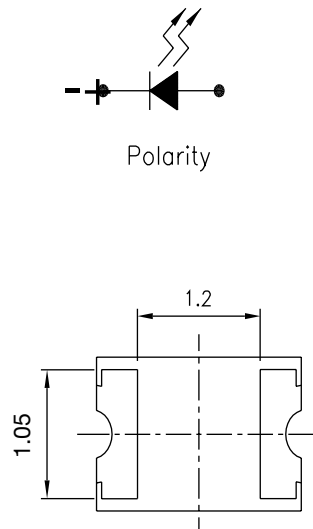
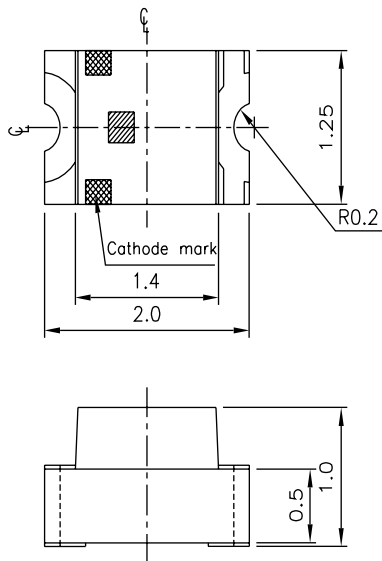
Key Features

- Surface mount technology
- Tape and reel packaged for high-speed auto insertion
- Convection and vapor-phase reflow compatible
- Compact form enables high density placement
- Viewing angle: 140°
- Packaged 4000 pieces per reel
- Lead Finish (Plating): Au
- Under Plating Material: NiCu
- Leading edge LED optoelectronic performance
- Consistent high brightness
- Exceptional Reliability
- Stringent process controls assure quality
- Extensive qualification testing to meet strictest requirements
- Designed to permit easy post-reflow solder joint inspection
- MSL Rating 2
- For custom LED color contact VCC
- RoHS and REACH Compliant

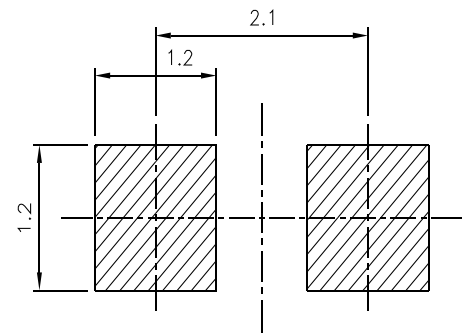
Ordering Data

Series	Emitted Color/Lens Color																
CMD17-21	SRC/TR8																
	<table border="1"> <tbody> <tr> <td>SRC/TR8</td> <td>Super Red/Clear</td> </tr> <tr> <td>VRC/TR8</td> <td>H.E. Red/Clear</td> </tr> <tr> <td>VYC/TR8</td> <td>Yellow/Clear</td> </tr> <tr> <td>VGC/TR8</td> <td>Green/Clear</td> </tr> <tr> <td>UGC/TR8</td> <td>Green/Clear</td> </tr> <tr> <td>VRD/TR8</td> <td>H.E. Red/Red Diffused</td> </tr> <tr> <td>VYD/TR8</td> <td>Yellow/Yellow Diffused</td> </tr> <tr> <td>VGD/TR8</td> <td>Green/Green Diffused</td> </tr> </tbody> </table>	SRC/TR8	Super Red/Clear	VRC/TR8	H.E. Red/Clear	VYC/TR8	Yellow/Clear	VGC/TR8	Green/Clear	UGC/TR8	Green/Clear	VRD/TR8	H.E. Red/Red Diffused	VYD/TR8	Yellow/Yellow Diffused	VGD/TR8	Green/Green Diffused
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VYD/TR8	Yellow/Yellow Diffused																
VGD/TR8	Green/Green Diffused																

Product Dimensions



Recommended Soldering Pattern



Notes:

1. All dimensions are in mm
2. Tolerance is ± 0.1 mm unless otherwise noted
3. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.

Product Specifications

Electrical-Optical Characteristics

Part Number	Emitted Color	Lens Color	Test Current (mA)	Luminous Intensity		Forward Voltage		Peak Wavelength (nm)	Viewing Angle (degrees)
				Min. (mcd)	Typ. (mcd)	Typ. (V)	Max. (V)		
CMD17-21SRC/TR8	Super Red	Clear	20	10.0	21.0	1.7	2.4	660	140
CMD17-21VRC/TR8	H.E.Red	Clear	20	4.5	13.0	2.0	2.8	640	140
CMD17-21VYC/TR8	Yellow	Clear	20	5.0	12.0	2.0	2.8	585	140
CMD17-21VGC/TR8	Green	Clear	20	6.0	10.0	2.1	2.8	570	140
CMD17-21UGC/TR8	Green	Clear	20	8.0	15.0	2.1	2.8	570	140
CMD17-21VRD/TR8	H.E.Red	Red Diffused	20	3.0	6.0	2.0	2.8	640	140
CMD17-21VYD/TR8	Yellow	Yellow Diffused	20	2.5	4.0	2.0	2.8	505	140
CMD17-21VGD/TR8	Green	Green Diffused	20	4.0	7.0	2.1	2.8	570	140

Absolute Maximum Ratings

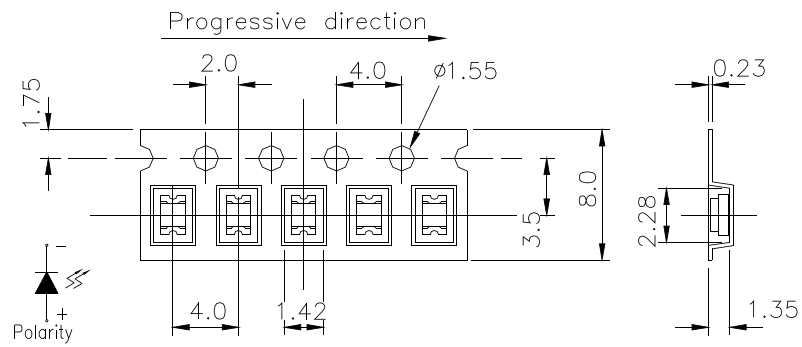
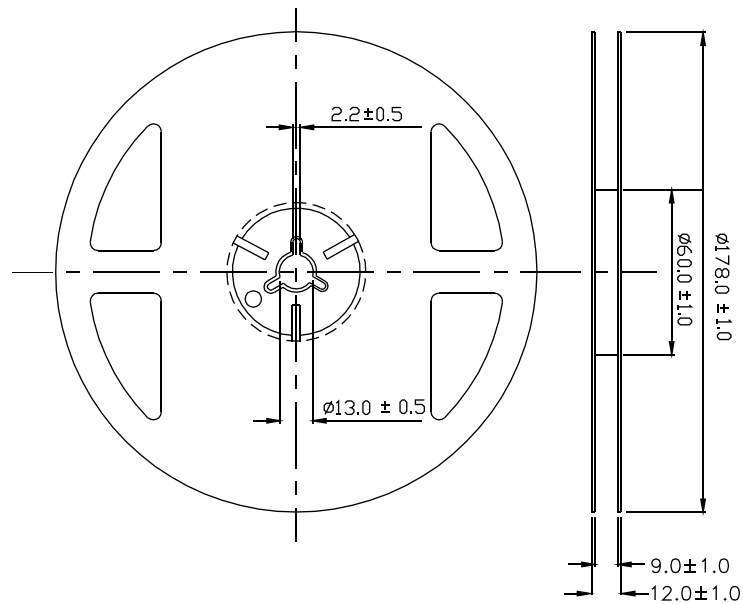
Emitted Color	Power Dissipation (mW)	Operating/Storage Temperature (°C)	Average Forward Current (mA)	Peak Forward Current (1 μ s @ 10% duty cycle)	Reverse Voltage (IR=100 μ A) (V)	Lead Solder Time at 260°C (Seconds)
Red	100	-40 to +85	30	150	5.0	5
Yellow	105	-40 to +85	30	150	5.0	5
Green	105	-40 to +85	30	150	5.0	5

Reliability Data

The reliability of products shall be satisfied with items listed below. Confidence level: 90%, LTPD: 10%

No	Items	Test Condition	Test Hours/Cycle	Sample Size	Ac/Re
1	Reflow Soldering	Temp: 260 ± 5°C Min. 5 sec	6 min	22 PCS	0/1
2	Temperature Cycle	H: +100°C 15 min ∫ 5 min L: -40°C 15 min	300 Cycles	22 PCS	0/1
3	Thermal Shock	H: +100°C 5 min ∫ 10 sec L: -10°C 5 min	300 Cycles	22 PCS	0/1
4	High Temperature Storage	Temp: 100°C	1000 Hrs	22 PCS	0/1
5	Low Temperature Storage	Temp: -40°C	1000 Hrs	22 PCS	0/1
6	DC Operating Life	IF=20mA	1000 Hrs	22 PCS	0/1
7	High Temperature/High Humidity	85°C/85%RH	1000 Hrs	22 PCS	0/1

Tape and Reel Specifications



Notes:

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2. Tolerance is ± 0.1 mm unless otherwise noted
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Compliances and Approvals

