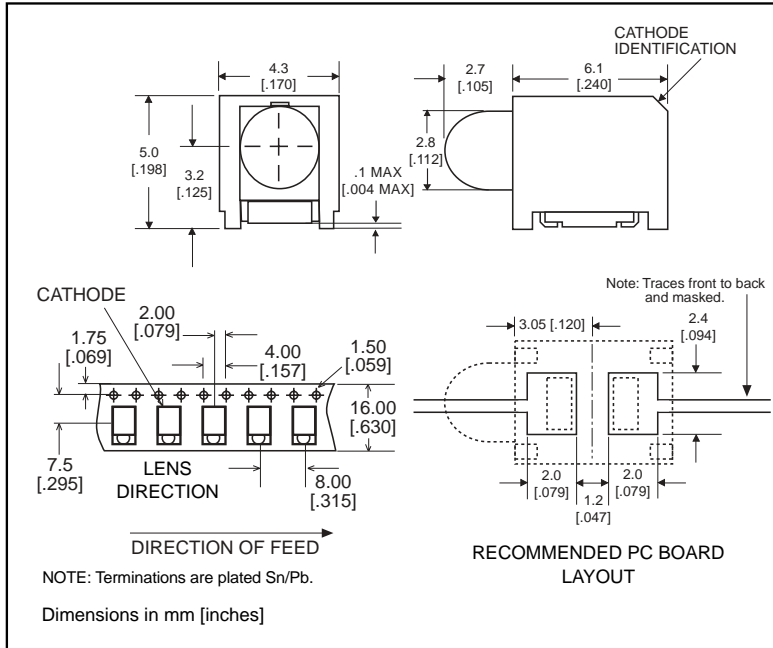


3mm Prism® CBI® Circuit Board Indicator Surface Mount LED, Round Lens



591-2001-0xx
591-2301-0xx
591-2401-0xx

1



Part Number*

Type

591-2001-0xx	High Efficiency Red
591-2301-0xx	High Performance Green
591-2401-0xx	High Performance Yellow

Features

- Helps to eliminate mixed technology PC board processing.
- Unique patented low part count design.
- Compatible with automatic placement equipment.
- Compatible with infrared and vapor phase solder processes.
- Packaged on 16mm tape, 7" or 13" reels per EIA-481-2.
- Black housing enhances contrast ratio.
- Housing material meets UL94V-0 flammability rating.
- Lens material meets UL94-HB flammability rating.
- Uses LEDs designed specifically for surface mounting.

U.S. Patent RE 34,254; foreign patents pending.

*ORDERING INFORMATION

591-2x01-0xx

packaging option

02	20 pieces on tape
07	7" reel, 400 pcs/reel
13	13" reel, 1600 pcs/reel

NEW

Absolute Maximum Ratings, T_A=25°C

Parameter	-2001	-2301	-2401
Color*	20	21	24
Power Dissipation (derate linearly from 25°C mA/°C)	100mA .4	100mA .4	60mA .25
Forward DC Current	30mA	30mA	20mA
Peak Forward Current (10μ sec)	120mA	120mA	80mA
Operating Temperature	-55°C to +100°C		
Storage Temperature	-55°C to +100°C		
Soldering Temperatures Convection IR Vapor Phase	235° Peak, above 185° for 90 sec., 215°C for 3 Min.		

Solder Adherence per MIL-STD-202E, Method 208C

**LED colors: 20) High Efficiency Red 21) High Efficiency Green,*

24) High Performance Yellow

U.S. Patent RE 34,254; foreign patents pending.

Operating Characteristics (T_A = 25°C)

Parameter	Part No.	Color*	Min	Typ	Max	Units	Test Cond.
Forward Voltage V _F	-2001	20		2	2.6	V	I _F = 10mA
	-2301	21		2	2.6		
	-2401	24		2	2.6		
Reverse Voltage V _R	-2001	20	5			V	I _R = 10 μA
	-2301	21	5				
	-2401	24	5				
Dominant Wavelength λ Dom	-2001	20		628		nm	
	-2301	21		570			
	-2401	24		590			
Luminous Intensity I _V	-2001	20		5		mcd	I _F = 10mA
	-2301	21		4			
	-2401	24		5			
Viewing Angle (2θ ½)	-2001	20		40		deg.	
	-2301	21		40			
	-2401	24		40			

θ½ is the off axis angle at which the luminous intensity is half the axial luminous intensity

**LED colors: 20) High Efficiency Red 21) High Efficiency Green,*

24) High Performance Yellow



3mm

Prism® CBI® Circuit Board Indicator

Surface Mount LED, High Intensity, Round Lens

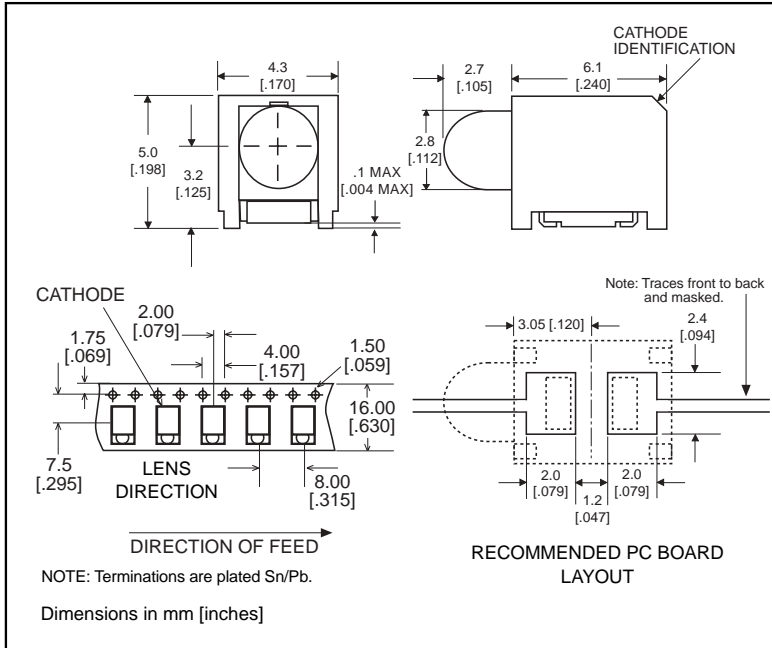
Dialight

591-2101-0xx

591-2201-0xx

591-2701-0xx

1



Part Number*

Type

591-2101-0xx	AlGaAs Red
591-2201-0xx	High Intensity Green
591-2701-0xx	AllnGaP Yellow

NEW
NEW

Features

- Helps to eliminate mixed technology PC board processing.
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- Compatible with automatic placement equipment.
- Compatible with infrared and vapor phase solder processes.
- Packaged on 16mm tape, 7" or 13" reels per EIA-481-2.
- Black housing enhances contrast ratio.
- Housing material meets UL94V-0 flammability rating.
- Lens material meets UL94-HB flammability rating.
- Uses LEDs designed specifically for surface mounting.

U.S. Patent RE 34,254; foreign patents pending.

*ORDERING INFORMATION	
591-2x01-0xx	
packaging option	
02	20 pieces on tape
07	7" reel, 400 pcs/reel
13	13" reel, 1600 pcs/reel

NEW

Absolute Maximum Ratings, $T_A=25^\circ\text{C}$

Parameter	-2101	-2201	-2701
Color*	21	22	27
Power Dissipation (derate linearly from 25°C mA/°C)	100mA .8	100mA .6	60mA .6
Forward DC Current	200mA	120mA	160mA
Peak Forward Current (10µ sec)	120mA	120mA	80mA
Operating Temperature	-55°C to +100°C		
Storage Temperature	-55°C to +100°C		
Soldering Temperatures Convection IR Vapor Phase	235° Peak, above 185° for 90 sec., 215°C for 3 Min.		

Solder Adherence per MIL-STD-202E, Method 208C

**LED colors: 21) AlGaAs Red 22) High Intensity Green, 27) AlInGaP Yellow*

U.S. Patent RE 34,254; foreign patents pending.

Operating Characteristics ($T_A = 25^\circ\text{C}$)

Parameter	Part No.	Color	Min	Typ	Max	Units	Test Cond.
Forward Voltage V_F	-2101	21		1.8	2.4	V	$I_F = 20\text{mA}$
	-2201	22		2.1	2.6		
	-2701	27		2	2.4		
Reverse Voltage V_R	-2101	21	3	5		V	$I_R = 10\text{mA}$
	-2201	22	5	5			
	-2701	27	5	5			
Dominant Wavelength λ_{Dom}	-2101	21		638		nm	
	-2201	22		569			
	-2701	27		595			
Luminous Intensity I_V	-2101	21		23.9		mcd	$I_F = 10\text{mA}$
	-2201	22		9.1			
	-2701	27		33.6			
Viewing Angle ($2\Theta_{1/2}$)	-2101	21		40		deg.	
	-2201	22		40			
	-2701	27		40			

$\Theta_{1/2}$ is the off axis angle at which the luminous intensity is half the axial luminous intensity

**LED colors: 21) AlGaAs Red 22) High Intensity Green, 27) AlInGaP Yellow*

