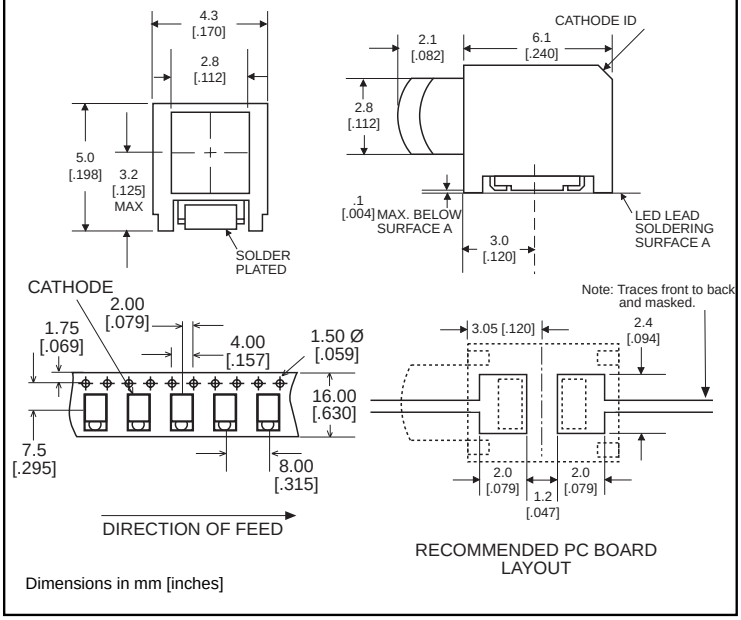
3mm
Prism® CBI® Infrared Emitter
True Surface Mount LED

Dialight

591-7101-1xx



Part No.*
591-7101-1xx

Configuration
880 nm IR Emitter

Applications

- Control and drive circuits
- Copiers
- Proximity Sensors
- Data Links

Benefits

- Small Package conserves space
- Fast switching time
- Increased sensing range from narrow beam
- Very high efficiency GaAlAs IR LEDs
- Long product life due to reliable components
- Meets UL 94V-0 requirements
- Vibration and shock resistant
- Economical handling with 7 and 13 inch reels

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

Characteristics (T_A = 25°C) λ = 880 nm

Peak Wavelength (I_F = 100 mA, t_p = 20 ms)	880 ±20 nm
Spectral Bandwidth (50% of I_{REL}, I_F = 100 mA)	80 nm
Full Angle (2Θ 1/2)	30°
Emitting Area Dimensions	0.1 x 0.1 in.
Capacitance (V_R = 0 V, f = 1 MHz)	25 pF
Forward Voltage (I_F = 100 mA, t_p = 20 ms)	1.5 (≤1.8) V
Forward Voltage (I_F = 1 A, t_p = 100 µs)	3.0 (≤3.8) V
Reverse Current (V_R = 5 V)	0.01 (≤1)µA
Total Radiant Flux (I_F = 100 mA, t_p = 20 ms)	10 mW
Radiant Intensity (I_F = 100 mA, t = 20 ms)	6 mW/sr

*** ORDERING INFORMATION**

591-7101-1xx

packaging option

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

Maximum Ratings

Reverse Voltage	5 V
Forward Current	100 mA
Surge Current (t = 10 µs, D = 0)	2.5 A
Total Power Dissipation	180 mW
Reflow Soldering:	
Temperature at Soldering Zone	Maximum Transit Time
260° C	10 sec
215° C	30 sec
Preheating Temperature (Approximately 1 min)	150° C
Operating & Storage Temperature	–55° C to +100° C
Junction Temperature	100°C