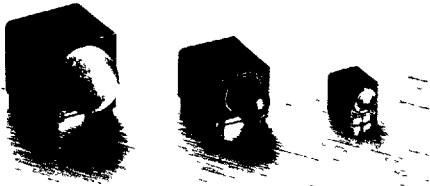


**PRISM™ CBI™ SERIES - 5mm-590, 3mm-591, 2mm-595**

□ Dialight's PRISM CBI Series is the first true right angle surface-mountable LED indicator.



	COLOR	V <sub>F</sub>	mcd	mA
590	-2101	1.75	29	10
	-2001	2	8	10
	-2301	2	6.5	10
	-2401	Y	2	5

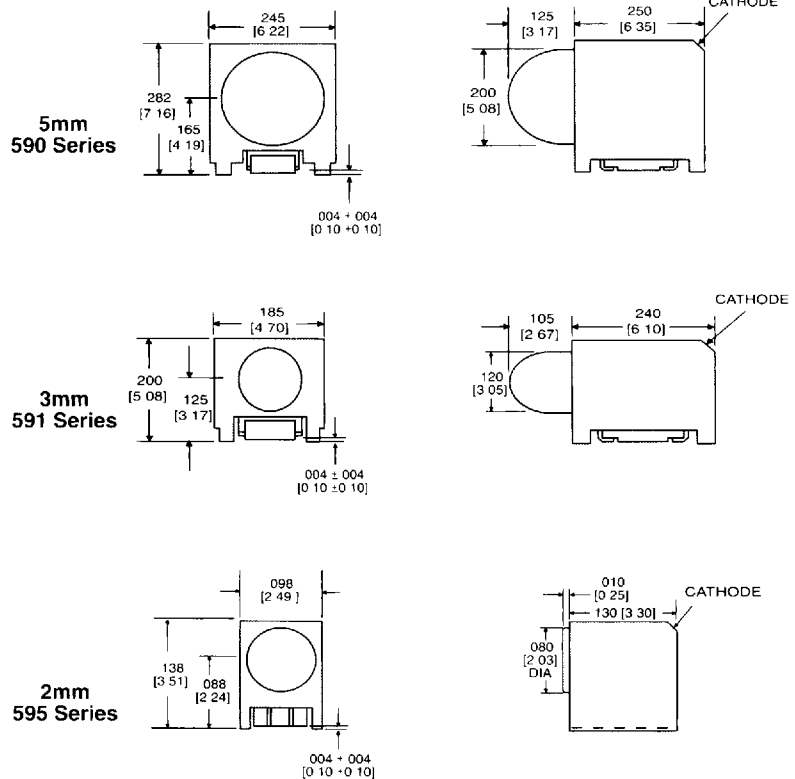
Available in 13" (33 cm) reels

591	-2101	1.75	29	10
	-2001	2	8	10
	-2301	2	6.5	10
	-2401	Y	2	5

Available in 13" (33 cm) reels

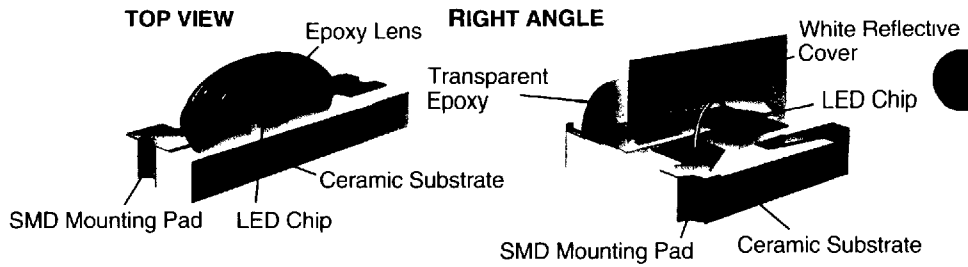
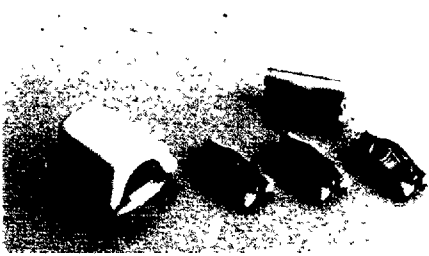
595	-2101	1.7	9.5	20
	-2301	2.1	5.6	20
	-2401	Y	2.2	5.7

Available in 7" (17.8 cm) and 13" (33 cm) reels



\*\* AlGaAs  
 [ ] Metric dimensions in mm  
 U.S. Patent # 4,935,856. Foreign patents pending.  
 All electrical values and dimensions are typical

**VISIBLE 597 SERIES**

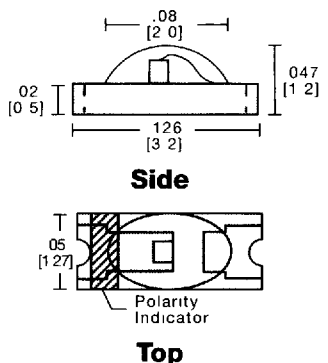


**TOP VIEW**

TYPE	EMISSION COLOR	ENCAPSULATION	WAVELENGTH IN NM	mcd @ 20 mA		V <sub>F</sub> @ 20 mA IN V	I <sub>F</sub> MAX. IN mA	POLARITY INDICATOR
				MIN.	TYP.			
-3001		Tinted	630	3.2	7.2	2.1	75	Cathode
-3012*		Tinted	700	2.1	4.8	2.2	60	Cathode
-3101		Clear	655	8.0	15.0	1.8	75	Anode
-3111		Tinted	655	4.0	8.0	1.8	75	Anode
-3301		Tinted	565	3.2	6.9	2.0	75	Cathode
-3401	<b>Yellow</b>	Tinted	585	1.5	7.0	2.3	75	Cathode
-3501		Clear	570	2.8	7.2	2.2	75	Cathode
-3601		Clear	470	0.6	1.5	3.0	50	Cathode

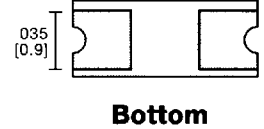
\*Low current

**TOP VIEW PACKAGE**

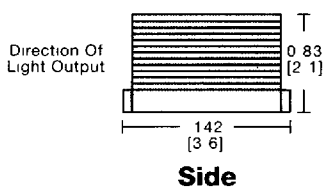


**RIGHT ANGLE**

TYPE	EMISSION COLOR	WAVELENGTH IN NM	mcd @ 20 mA		V <sub>F</sub> @ 20 mA IN V	I <sub>F</sub> MAX. IN mA
			MIN.	TYP.		
-2001		630	3.2	8.2	2.1	75
-2101		655	8.0	17.0	1.8	75
-2301		565	3.2	7.5	2.0	75
-2401	<b>Yellow</b>	585	1.5	7.4	2.3	75
-2501		570	2.8	7.8	2.2	75

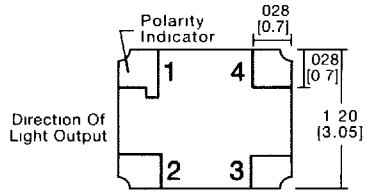


**RIGHT ANGLE PACKAGE**



**RIGHT ANGLE - DUAL COLOR**

TYPE	EMISSION COLOR	WAVELENGTH IN NM	mcd @ 20 mA		V <sub>F</sub> @ 20 mA IN V	I <sub>F</sub> MAX. IN mA
			MIN.	TYP.		
597 -2701		630/570	4.0	7.0	1.8	75

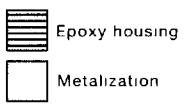
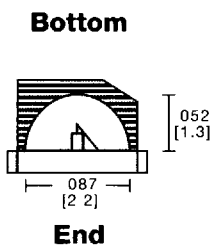


**RIGHT ANGLE - WHITE & MULTI-SPECTRAL**

TYPE	EMISSION COLOR	WAVELENGTH IN NM	mcd @ 20 mA		V <sub>F</sub> @ 20 mA IN V	I <sub>F</sub> MAX. IN mA
			MIN. / MAX.	MIN.		
597 -2711		470/700	1.2	8.0	3.5	75

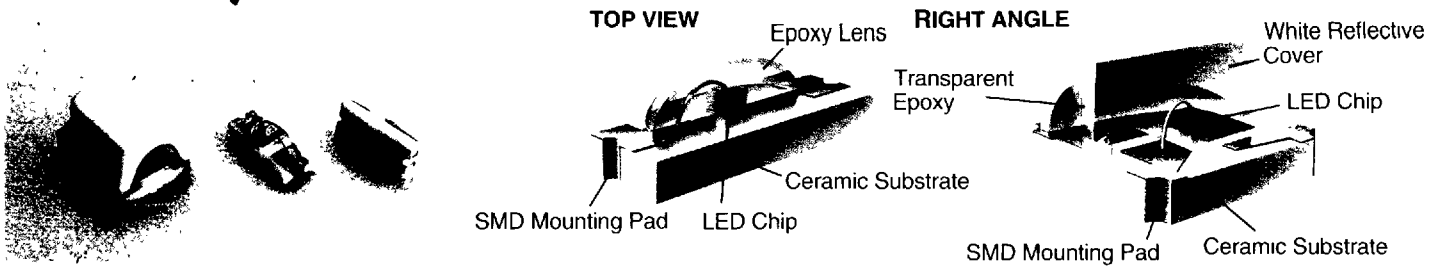
**RIGHT ANGLE PACKAGE PIN OUT**

DEVICE	PIN IDENTIFICATION			
	1	2	3	4
-2001,-2301,-2401,-2501	A	N/C	C	N/C
-2101	C	N/C	A	N/C
-2701	A(Green)	A(Red)	C	N/C
-2711	C(Blue)	A	C(Red)	C(Green)



[ ] Metric dimensions in mm.  
 Manufactured utilizing CERLED technology  
 All electrical values and dimensions are typical.

**INFRARED 597 SERIES**

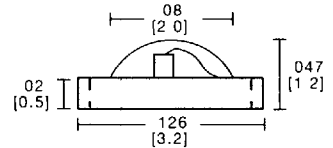


**TOP VIEW – EMITTER**

TYPE	WAVELENGTH IN NM	POWER IN mW		RISE & FALL TIME		FORWARD VOLTAGE		IF MAX. in mA	POLARITY INDICATOR	
		100mA	20mA	in ns	in ns	100mA	20mA			
597	-3801	880**	9.2	2.0	1500	800	1.65	1.35	75	Anode
	-3811	940*	3.7	0.8	2000	1000	1.5	1.2	75	Cathode
	-3821	700	5.4	1.2	60	40	2.1	1.7	75	Anode
	-3831	880*	6.0	1.3	1500	800	1.5	1.3	75	Anode

\* AlGaAs \*\* DH AlGaAs

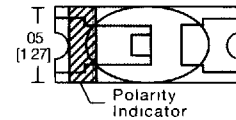
**TOP VIEW PACKAGE**



**TOP VIEW – DETECTORS, PIN DIODE**

TYPE	PHOTO- SENSITIVITY in nm	PEAK WAVELENGTH in nm	OPEN CIRCUIT VOLT Vo in mV	P. CURRENT Isc in µA	D. CURRENT Ir in nA	ACTIVE AREA A2 in mm	RISE/FALL TIME tr/td in ns	POLARITY INDICATOR	
									597

**Side**



**Top**



**Bottom**

**TOP VIEW – PHOTOTRANSISTORS**

TYPE	PHOTO- SENSITIVITY in nm	PEAK WAVELENGTH in nm	VCE in V	IC in mA	P. CURRENT Ipc in mA	D. CURRENT Iceo in nA	ACTIVE AREA A in mm²	RISE/FALL TIME tr/td in µs	
									597

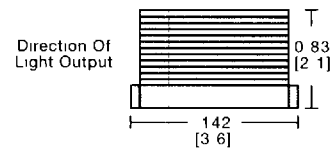
NOTE: Polarity indicator is the collector

**RIGHT ANGLE – EMITTER**

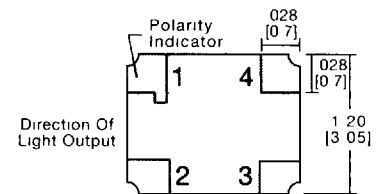
TYPE	WAVELENGTH in nm	POWER IN mW		RISE & FALL TIME		FORWARD VOLTAGE		IF MAX. in mA	
		100mA	20mA	in ns	in ns	100mA	20mA		
597	-2801	880**	9.2	2.0	1500	800	1.65	1.35	75
	-2811	940*	3.7	0.8	2000	1000	1.5	1.2	75
	-2821	700	5.4	1.2	60	40	2.1	1.7	75
	-2831	880*	6.0	1.3	1500	800	1.5	1.3	75
	-2841	880**	20.0	5.6	Dual 597 -2801 with common anodes				

\* AlGaAs \*\* DH AlGaAs

**RIGHT ANGLE PACKAGE**



**Side**



**Bottom**

**RIGHT ANGLE – DETECTORS, PIN DIODE**

TYPE	PHOTO- SENSITIVITY in nm	PEAK WAVELENGTH in nm	OPEN CIRCUIT VOLT Vo in mV	P. CURRENT Isc in µA	D. CURRENT Ir in nA	ACTIVE AREA A2 in mm	RISE/FALL TIME tr/td in ns	
								597

**RIGHT ANGLE – PHOTOTRANSISTORS**

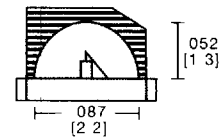
TYPE	PHOTO- SENSITIVITY in nm	PEAK WAVELENGTH in nm	VCE in V	IC in mA	P.-CURRENT Ipc in mA	D. CURRENT Iceo in nA	ACTIVE AREA A in mm²	RISE/FALL TIME tr/td in µs	
									597

**RIGHT ANGLE PACKAGE PIN OUT**

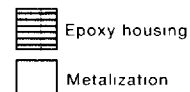
DEVICE	PIN IDENTIFICATION			
	1	2	3	4
-2801,-2821,-2831	C	N/C	A	N/C
-2811	A	N/C	C	N/C
-2841	C2	C1	A1,2	N/C
-1121*	E	B	C	N/C
-1412**	A	N/C	C	N/C

\* Phototransistor \*\*Photo Pin

[ ] Metric dimensions in mm  
Manufactured utilizing CERLED technology.  
All electrical values and dimensions are typical

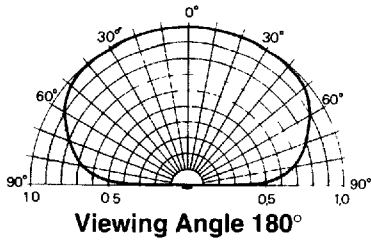


**End**



**PRISM™ AND *microLED*™ SERIES**

**microLED VIEWING ANGLE**



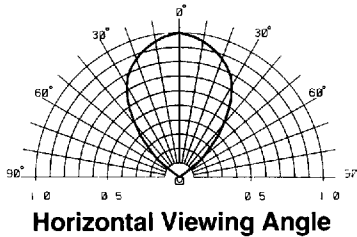
**TOP VIEW PACKAGE**

**microLED MAXIMUM RATINGS**

**TOP VIEW PACKAGE**

	POWER DISSIPATION	LINEAR DERATING	REVERSE VOLTAGE	PEAK FORWARD CURRENT	LIGHT EMISSION ANGLE
597	130mW at 25 °C	2.7 mW/°C	5V min.	800mA 10µs	170° 50% rel.

**RIGHT ANGLE PACKAGE**

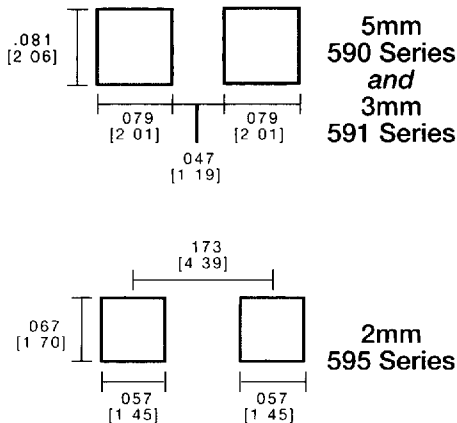


**RIGHT ANGLE PACKAGE**

	POWER DISSIPATION	LINEAR DERATING	REVERSE VOLTAGE	PEAK FORWARD CURRENT	LIGHT EMISSION ANGLE
597	180mW at 25 °C	2.9 mW/°C	5V min	800mA 10µs	80° 50% rel

**RECOMMENDED BOARD LAYOUTS**

**PRISM**



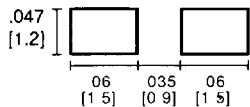
**TAPE AND REEL SPECIFICATIONS**

	590-XXXX	591-XXXX	595-XXXX	595-XXXX	597-XXXX	597-XXXX
DIM.	-013	-013	-007	-013	-007*	-013**
A	.512	.512	.512	.512	.512	.512
B	13.0	13.0	7.0	13.0	7.0	13.0
C	3.94	3.94	2.36	3.94	1.57	3.94
D	.764	.764	.606	.606	.472	.606
E	16mm	16mm	12mm	12mm	8mm	12mm
F	.295	.295	.217	.217	.138	.217
G	.069	.069	.069	.069	.069	.069
H	.157	.157	.157	.157	.157	.157
I	.059	.059	.059	.059	.059	.059
J	.472	.315	.315	.315	.157	.315
K	.381	.355	.155	.155	.138	.157
L	.258	.198	.104	.104	.075	.133
M	.293	.211	.148	.148	.051	.091
Qty/Reel	700	1600	600	2300	3000	3000

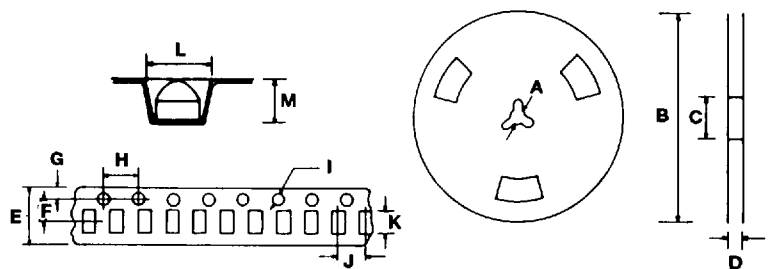
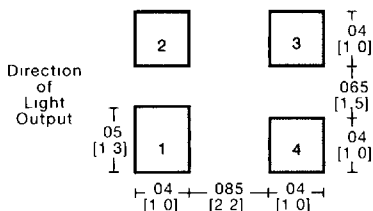
\* Top View Only \*\* Right Angle Only

**microLED**

**TOP VIEW PACKAGE**



**RIGHT ANGLE PACKAGE**



**HOW TO ORDER:**

Example: 597 - 3012 - X X X

**PACKAGING OPTIONS**

- 001 — Bulk at 100 pcs. per bag
- 002 — 20 pcs. on tape
- 007 — 7" reel
- 013 — 13" reel

[ ] Metric dimensions in mm. All electrical values and dimensions are typical.