

General Features

Richco's range of LED hardware components are designed to protect and support LED's and also aid in the transmission of light to front panel indicators.

Richco's LED Spacers fit most standard LED's and can raise the LED to the desired position on the PCB, minimizing shifting, uniformity and aiding ease of installation especially for surface mount applications.

Holding the LED at the desired angle position on the front panel is another application area that Richco has LED hardware solutions for. Richco has a range of angled and front panel LED holders, which ensure that the LED is held securely in position.

Directing light from the PCB to the front panel from awkward PCB mounting positions can be solved with Richco's range of solid light pipes, which are ideal for use with surface mount LED's.

Typical Applications

- | | |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------|
| • Brown Goods/
Consumer Electronics | Hi Fi cassette players, CD players, DVD players, TV set top boxes and television/monitor standby indicators |
| • Games Machines | Coin operated slot machines |
| • Office Equipment | Computers, hard drive/battery and standby indicators |
| • White Goods | Appliance control panels and boiler control panels |
| • Telecommunications | Distribution racks and panels, transponder/receiver cards, signal amplification modules |
| • Medical Equipment | Monitoring and scanning equipment |

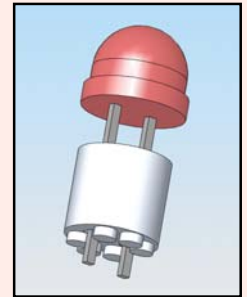
Materials

Most of Richco's LED Hardware products come in the following materials.

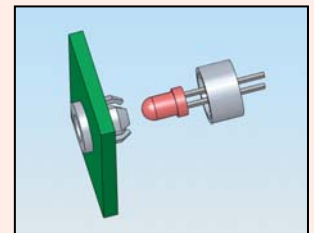
Material	UL94 Flammability Rating	RoHS Compliance	RMS
Nylon 6/6	V2	Yes	01
PVC	V0	Yes	26
Polycarbonate	V2	Yes	181

For material details please see individual parts in this section and refer to relevant RMS number which can be found at the end of the catalog.

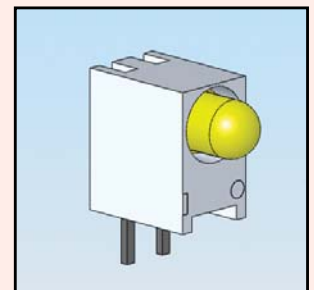
Introduction



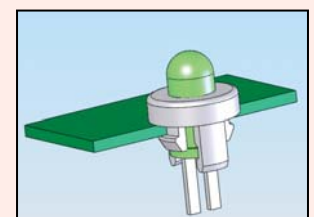
Molded LED Spacers



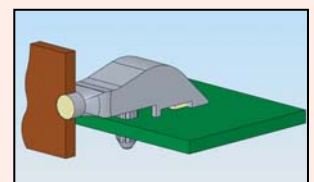
LED Clips & Rings



LED Holders



LED Holders

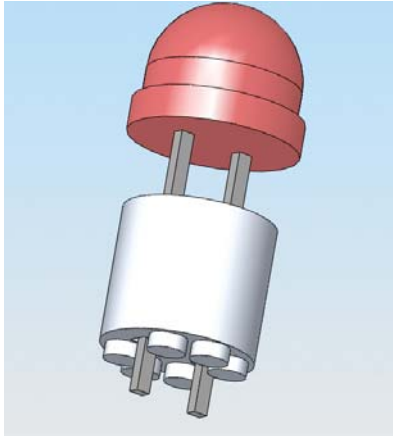


Light Pipes

LED HARDWARE

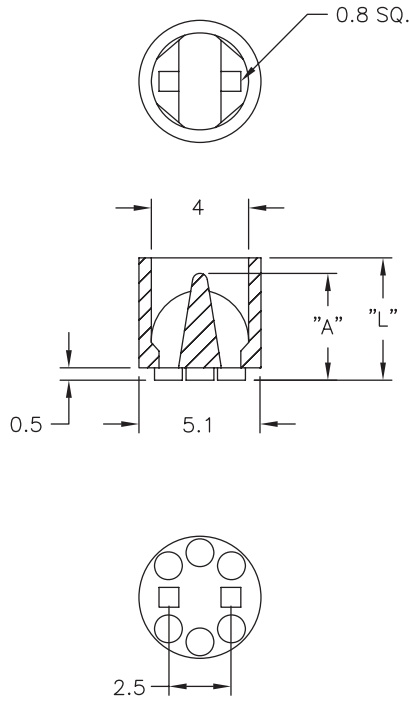
LEDS2M

Molded LED Spacer



- Spaces LED from surface of board, minimizing shifting and height variations
- Unique internally tapered design allows for quick and easy insertion of LED
- Positive self-alignment of leads

For T-1 3/4 Series LED

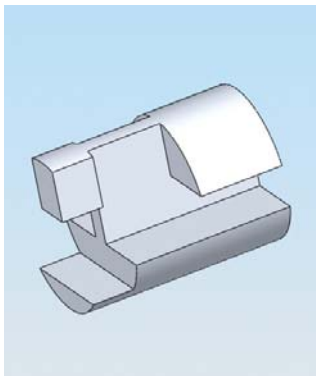


Material: Nylon 6/6, RMS-01 Color: Natural		
Part No.	Standard Pack: 1,000 per bag	
	"L" ± 0.25	"A" Ref
LEDS2M-120-01	3	2
LEDS2M-140-01	3.6	
LEDS2M-160-01	4.1	
LEDS2M-180-01	4.6	
LEDS2M-200-01	5.1	
LEDS2M-220-01	5.6	
LEDS2M-240-01	6.1	5.1
LEDS2M-250-01	6.4	
LEDS2M-260-01	6.6	
LEDS2M-280-01	7.1	
LEDS2M-300-01	7.6	
LEDS2M-340-01	8.6	
LEDS2M-360-01	9.1	8.4
LEDS2M-380-01	9.7	
LEDS2M-400-01	10.2	
LEDS2M-420-01	10.7	
LEDS2M-450-01	11.4	
LEDS2M-460-01	11.7	
LEDS2M-550-01	14	11.4
LEDS2M-600-01	15.2	14.7
LEDS2M-650-01	16.5	
LEDS2M-850-01	21.6	17.8
LEDS2M-900-01	22.9	

F

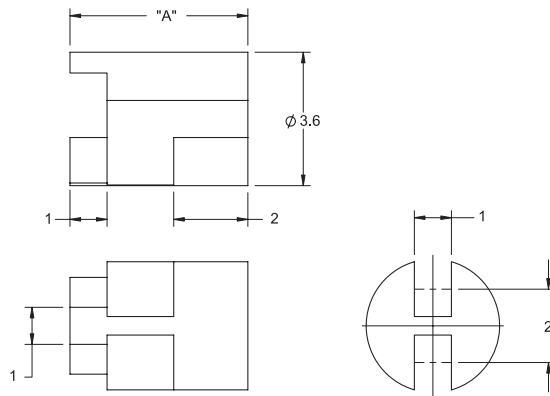
LEDS1E/LEDS2E

Molded LED Spacers



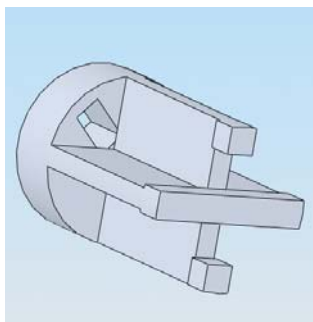
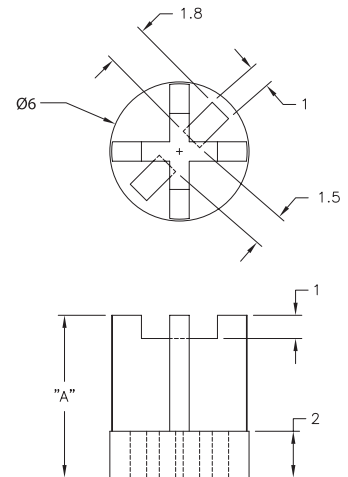
LEDS1E

For T-1 Series LED



LEDS2E

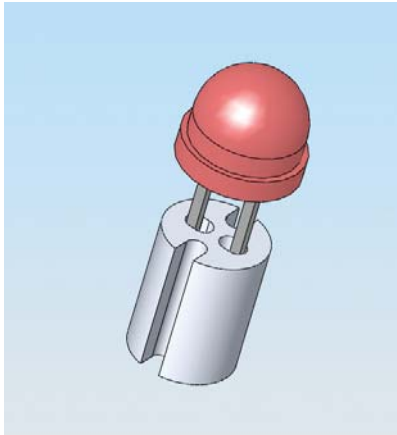
For T-1 3/4 Series LED



Material: Nylon 6/6, RMS-01* Color: Natural	
Part No.	Standard Pack: 1,000 per bag
	"A"
LEDS1E-3-01	4.8
LEDS1E-4-01	6.4
LEDS1E-6-01	9.5
LEDS1E-8-01	12.7
LEDS1E-10-01	15.9
LEDS1E-12-01	19.1
LEDS1E-14-01	22.2
LEDS1E-16-01	25.4
*Available in UL94 V0 material. To order, replace -01 with -19	

Material: Nylon 6/6, RMS-01* Color: Natural	
Part No.	Standard Pack: 1,000 per bag
	"A"
LEDS2E-3-01	4.8
LEDS2E-4-01	6.4
LEDS2E-6-01	9.5
LEDS2E-8-01	12.7
LEDS2E-10-01	15.9
LEDS2E-12-01	19.1
LEDS2E-14-01	22.2
LEDS2E-16-01	25.4
*Available in UL94 V0 material. To order, replace -01 with -19	

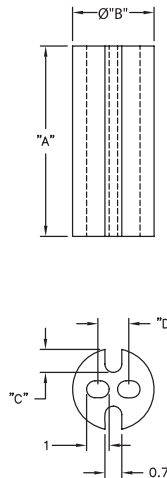
LEDS1/LEDS2/LEDS3 LED Spacers



- Allows easy assembly without tools, while firmly holding LED's during handling
- Provides lead separation and lateral stability for components

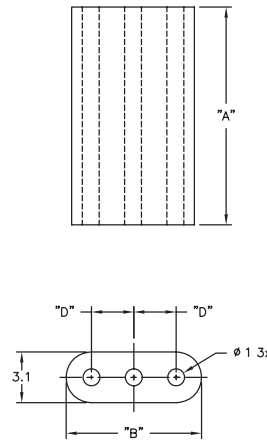
LEDS 1/2

For T-1 Series LED



LEDS 3

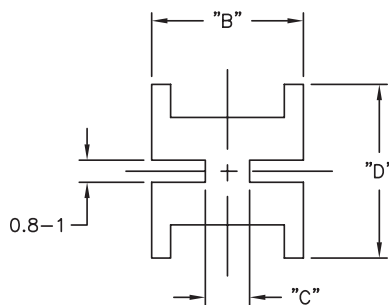
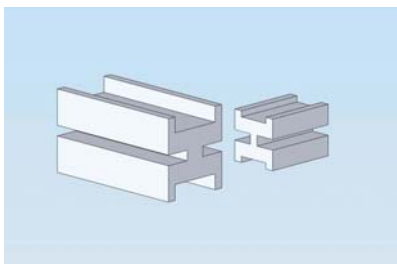
For T-1 3/4 Series LED



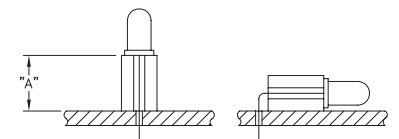
Material: PVC, RMS-26 • Color: Black				
Part No.	Standard Pack: 1,000 per bag			
	"A"	"B" *	"C"	"D"
LEDS1-4-26	6.4	4	1.2	1.5
LEDS1-6-26	9.5			
LEDS1-8-26	12.7			
LEDS2-4-26	6.4	4.8	1.5	2.5
LEDS2-6-26	9.5			
LEDS2-8-26	12.7			
LEDS2-10-26	15.9			
LEDS2-12-26	19.1			
LEDS3-3-26	4.8	8.1	—	2.5
LEDS3-4-26	6.4			
LEDS3-6-26	9.5			
LEDS3-8-26	12.7			
LEDS3-10-26	15.9			
LEDS3-12-26	19.1			

*See Richco Engineering Drawing for tolerances.

SQLEDS1/SQLEDS2 Square LED Spacers



TYPICAL APPLICATIONS

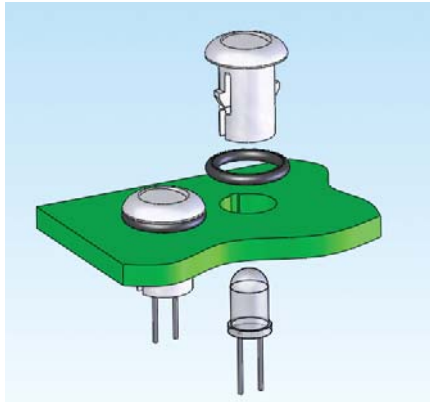


Material: PVC, RMS-26 Color: Black					
Standard Pack: 1,000 per bag					
Part No.	For LED	"A" ± 0.4	"B"	"C"	"D" REF.
SQLEDS1-4-26	T-1	6.4	4.3	0.8	4.3
SQLEDS1-6-26		9.5			
SQLEDS1-8-26		12.7			
SQLEDS2-4-26	T-1-3/4	6.4	6.1	1.8	6.9
SQLEDS2-6-26		9.5			
SQLEDS2-8-26		12.7			
SQLEDS2-10-26		15.9			
SQLEDS2-12-26		19.1			

LED HARDWARE

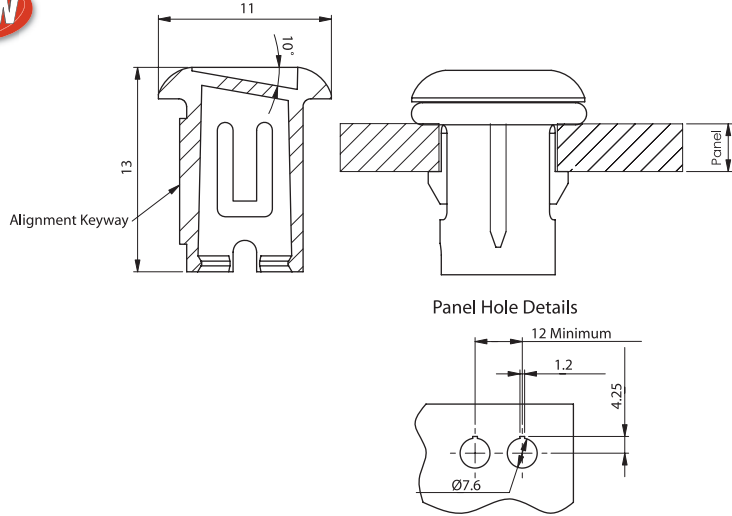
LEDC LED Lens Cover

NEW



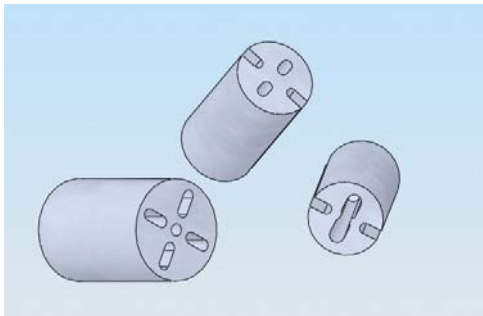
Patent Pending

- Standard 10° lens angle to control light transmission
- Rubber O-Ring gives protection to the LED from dust and water
- Fits standard 5mm T1-3/4 LED, simply snap in place

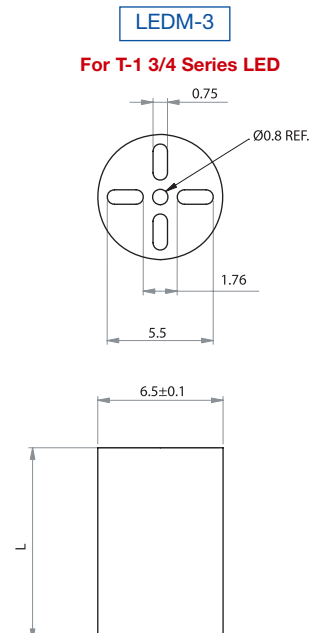
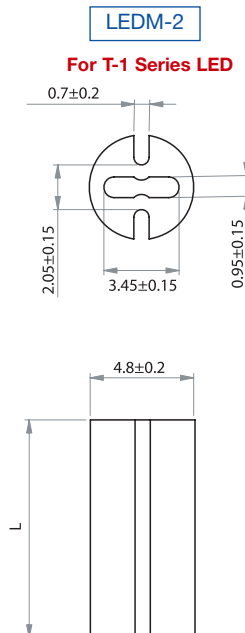
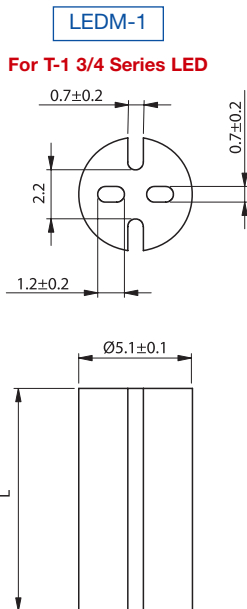


Material: Polycarbonate, RMS-215 Color: Clear		
Standard Pack: 1000 per bag		
Part No.	Details	O-Ring Material
LEDC-1	Cover	-
LEDC-2	Cover with O-Ring	Black Neoprene Rubber, RMS-279
Cover supplied with standard 10° angled lens. Custom options available by special order.		

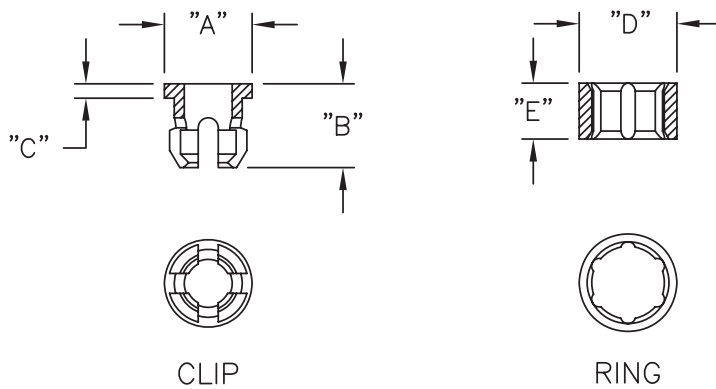
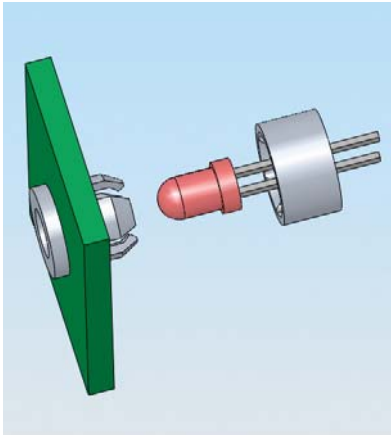
LEDM Metric LED Spacers



Material: PVC, RMS-176 Color: Black	
Standard Pack: 1,000 per bag	
Part No.	"L" Length
LEDM-1-L	2 - 30
LEDM-2-L	
LEDM-3-L	
Parts available in 1mm increments. To order, replace "L" with the length.	



LEDCR LED Clips & Rings

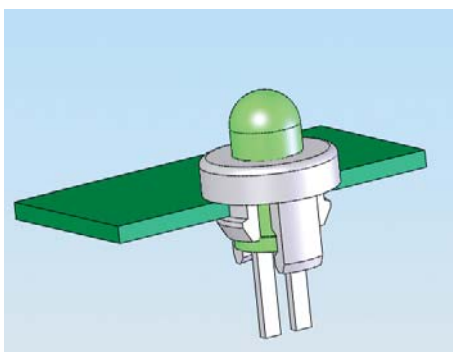


NOTE - Mounting Hole:
LEDCR-104 — 4.4-4.6 Dia.
LEDCR-174 — 6.8-6.9 Dia.
Panel Thickness: 0.81-3.2

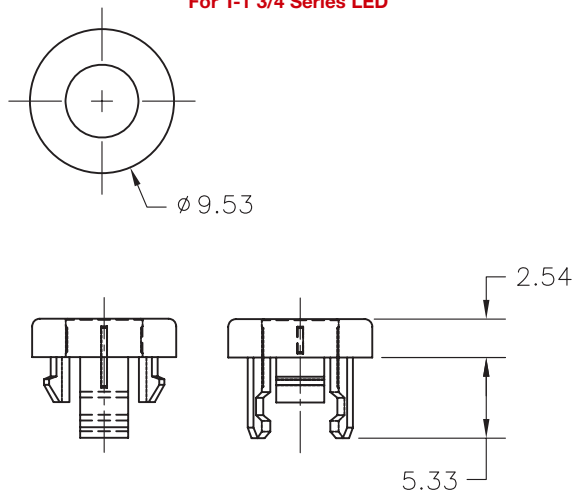
- Parts are sold in a set with both the clip and ring
- Securely and firmly mounts LED's
- The devices go together by simply inserting the "clip" to the front of the panel, then assembling the LED into the "clip" from the rear of the panel. The "ring" is pressed onto the rear of the "clip" for a firm retention

Color: Clear Standard Pack: 1000 per bag										
Part No.	Ring Material	Clip Material	LED Type	Mounting Hole	Panel Thickness	"A" Dia	"B"	"C"	"D" Dia	"E"
LEDCR-104	Nylon 6/6, RMS-43	Nylon 6/6, RMS-43	T-1	4.4-4.6	0.81-3.2	5.3	5.3	0.4	6.1	3.6
LEDCR-174	Nylon 6/6, RMS-48		T-1-3/4	6.8-6.9		7.6	6.6	0.8	8.9	4.1

LEDHPM-1 LED Holder; Panel Mount



For T-1 3/4 Series LED



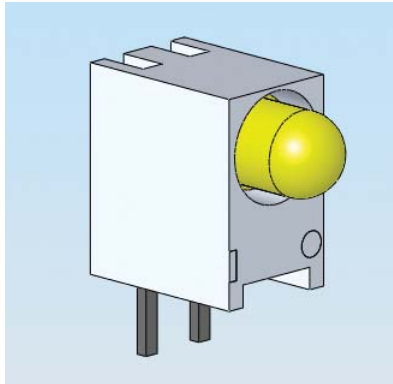
- Easily snaps into standard panel holes
- Once holder is snapped into hole, the LED will lock into place when inserted from the rear of the panel
- Provides secure, attractive display of LED'S

Mounting Hole Diameter: 7.14 - 7.29
Panel Thickness: 1.12 - 1.22

Material: Nylon 6/6, RMS-01
 Color: Natural
 Standard Pack: 1,000 per bag

LED HARDWARE

LEDH LED Holder

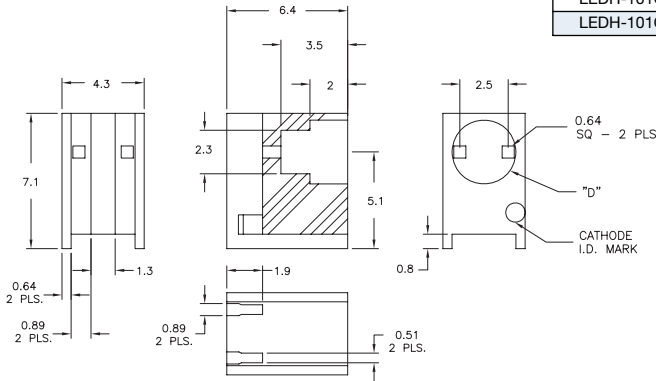


- Allows LED's to be mounted at a 90 degree angle
- Can be easily assembled by hand with no tooling required

LEDH-101C

For T-1 Series LED

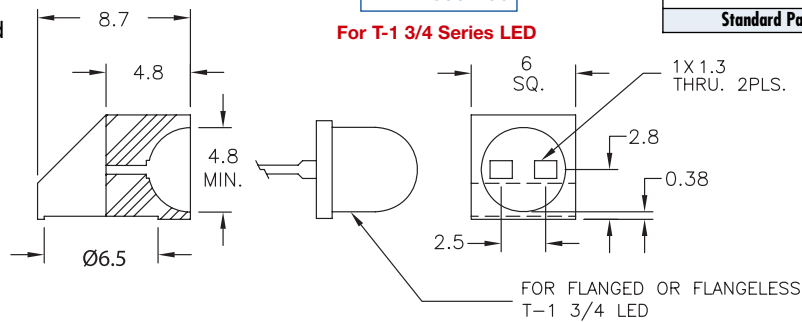
Material: Nylon 6/6, RMS-43 • Color: Black	
Part No.	Standard Pack: 1,000 per bag
	Dia. "D"
LEDH-101C-34	3.4
LEDH-101C-38	3.8



LEDH-909-235

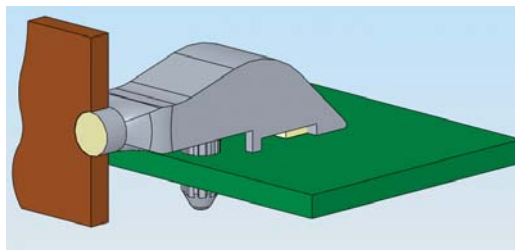
For T-1 3/4 Series LED

Material: Nylon 6/6, RMS-48, Color: Black
Standard Pack: 1,000 per bag



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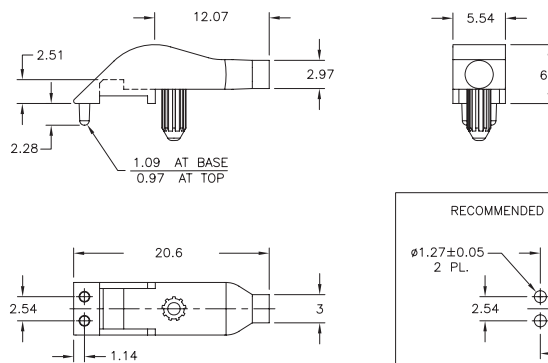
RSLP Light Pipe



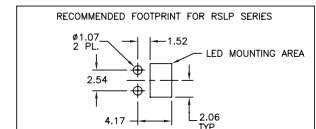
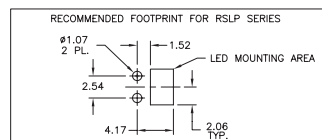
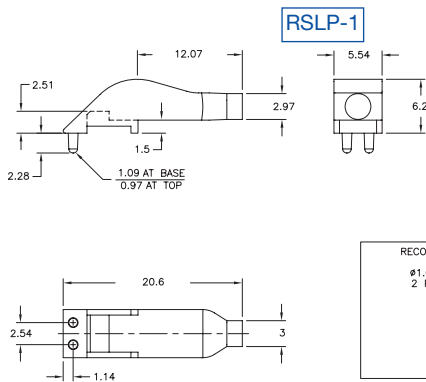
- Ideal for applications in which a surface mount LED is fixed and requires its output re-directed to a front panel.

RSLP1-3

Material: Polycarbonate, RMS-181
Color: Clear
Standard Pack: 1,000 per bag



RSLP-2



Material: Polycarbonate, RMS-181
Color: Clear
Standard Pack: 1,000 per bag

Material: Polycarbonate, RMS-181
Color: Clear
Standard Pack: 1,000 per bag