FLASHER HAZARD TRAFFIC FLARE
Flashing road emergency LED flare with flashlight. Easy to use, extremely durable, and much safer than traditional flares. Features 10 different flashing patterns including 3-LED work-light and provides 360 degrees of illumination. Contains a hook and strong magnet for placement on vehicle or boat and may be used in any weather condition. Ideal for road safety identification by emergency responders, personal vehicles, construction sites and marine applications. Powered by 3 AAA batteries (not included). 4.0" diameter x 1.5" high.
CAT # ERL-1 $9.95 each

SMALL DC GEAR MOTOR, 3V 20 RPM
Mini DC motor with plastic/nylon gear assembly. 20 RPM @ 3Vdc, no load. Plastic gear housing, nylon gears. Body dimensions 42mm x 42mm x 17mm. 2mm shaft with square shaped extension. Overall shaft dimensions 36mm L x 5mm diameter.
CAT # DCM-542 $3.00 each

300 LEDS, RED, GREEN, YELLOW, BLUE, WHITE
Keep a good selection of LEDs on hand for whatever your project might require. Red, Green, Blue, Yellow (Amber) and White 3mm and 5mm LED assortment. All are clear in off-state.
- 5mm LEDs, 20 pcs each color.
- 3mm LEDs, 40 pcs each color.
- Clear plastic divided box with locking lid.
Because all of these water-clear LEDs look alike and might easily get mixed, we suggest ordering our LED tester, CAT# LT-100 to assure LED color before soldering.
CAT # LED-K1 $8.00 kit

NEW ITEM
2.1MM ID COAX POWER PLUG W/ 9V BATTERY SNAP
2.1mm ID co-ax plug on two 4" wire leads terminate to 9 volt T-type battery snap.
CAT # CB-239 $1.30 each
10 for $1.15 each

NEW ITEM
ILLUMINATED MULTI POWER HEAD MAGNIFIER & LOUPE
Illuminated multi-power head magnifier keeps your hands free while enhancing your vision. 2 led bulbs with tilt and angle controls to adjust the light beam. Magnification:1.9x acrylic fixed lens, 1.9x acrylic flip-down lens and 4.5x glass swivel loupe. Magnifier assembly can be flipped up out of your way when not in use. Adjustable head strap with dial control. Plastic body.
CAT # HD-LMAG $10.95 each

NEW ITEM
3-POLE BULLET CONNECTOR SET
3.5mm gold-plated bullet connectors. Polarized, tough plastic (Nylon) connectors that fit securely together. Solder cups for up to AWG 12 wire. Includes sleeves to hide solder connections. 46 x 12 x 12mm.
CAT # CON-37 $3.25 set

NEW ITEM
EXTRA LOUD MINI PIEZO SIREN
Small, painfully-loud two-tone piezo siren for auto or home security devices. Operates 6-12 Vdc, 110 ma. 108dB output (30cm). 1.81" x 1.55" x 0.88" high black plastic body. Two mounting holes on diagonal 1.80" centers. 3" wire leads.
CAT# ES-10 $5.85 ea. • 10 for $5.65 ea.

NEW ITEM
7A 12 POSITION TERMINAL BLOCK
For 22-18 wire. 3.78" x 0.67" x 0.57" high. 0.32"(8mm) terminal centers. UL, CSA, VDE:Flexible white (natural) Nylon 66 body, 94V2 rated for 105 C degrees. 400 Volts. All metal parts are completely recessed in the housing to prevent shorts. Strip has 12 circuits, with a mounting hole between each circuit. Can be easily shortened with a knife or saw.
CAT # TB-7 $2.00 each
10 for $1.80 each • 100 for $1.60 each
SPDT ON-ON MINI TOGGLE SWITCH
RATED: 2 Amp 250 Vac, 5 Amp 120 Vac.
Solder lug terminals. 1/4-40 threaded bushing, 0.43” long handle.
CAT # MTS-4 $1.25 each
10 for $1.10 each • 100 for $0.95 each

25 FT. CAT-5E PATCH CABLE
Snagless molded RJ45, 350Mhz, UTP, Pure Bare Copper stranded 24AWG, Blue.
CAT # CB-525 $2.50 each
10 for $2.00 each
100 for $1.70 each
500 for $1.30 each

LM555 TIMER (MC1455)
8 pin DIP
CAT # LM555 75¢ each

12V DIFFUSED LED, 5MM (T 1 3/4)
Bright 5mm round LEDs with built-in resistors for 12Vdc, 12mA operation.
No external resistor required. Works well on 4-12Vdc. Dimmer at lower voltages.
35° viewing angle. Lenses are tinted the same color as the LED when lit.
Color CAT# Each 10 100
Green LED-12G 50¢ 45¢ 40¢
Red LED-12R 50¢ 45¢ 40¢

2N3904 NPN TO-92 TRANSISTOR
CAT # 2N3904 5 for 75¢
100 for 13¢ each • 1000 for 10¢ each

SPST MOMENTARY N.O. RED PUSHBUTTON
Normally open switch with 1/4” bushing and red plastic button. Ideal for most low current projects.
CAT # MPB-1 85¢ each
100 for 65¢ each

STANDARD T-1 3/4
Diffused

<table>
<thead>
<tr>
<th>Color</th>
<th>CAT#</th>
<th>Each</th>
<th>10</th>
<th>100</th>
</tr>
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<tbody>
<tr>
<td>RED</td>
<td>LED-1</td>
<td>10 for $1.00</td>
<td>.09</td>
<td>.07</td>
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<tr>
<td>GREEN</td>
<td>LED-2</td>
<td>10 for $1.50</td>
<td>.12</td>
<td>.08</td>
</tr>
<tr>
<td>YELLOW</td>
<td>LED-3</td>
<td>10 for $1.50</td>
<td>.12</td>
<td>.08</td>
</tr>
</tbody>
</table>

2.1MM COAX POWER JACK (FEMALE) W/ PIGTAIL
2.1mm coax power jack with 10” color-coded leads. 2.1mm id x 5.1mm od.
CAT # CB-209 $1.75 each

DE-SOLDERING WICK
For easy removal of parts from P.C. boards. Top quality solder wick. 5’ per spool. 1/16” wide.
CAT# SWK $2.25 per spool

HEATSHRINK TUBING ASSORTMENTS
IN UNBREAKABLE CLEAR PLASTIC BOXES
Have the right piece of heatshrink tubing when you need it. 4” lengths of 6 different diameters:
1/16” - 56 pcs, 3/32” - 35 pcs, 1/8” - 28 pcs,
3/16” - 18 pcs, 1/4” - 9 pcs, 3/8” - 8 pcs.

ASSORTED COLORS, 154 PIECES:
black, red, clear, yellow, green, blue, white
CAT# HS-4900 $10.95 per kit

BLACK ONLY, 154 PIECES:
CAT# HS-4901 $10.95 per kit

5” FLUSH CUTTER
Trim leads on PC boards. Thin cutting edge for hard to reach areas.
Insulated handle. Spring return.
CAT # FC-14 $5.25 each

10-POSITION DUAL-ROW STRIP, 20 AMP
10 circuit, dual-barrier strip rated.
20 Amps @ 300 Volts. Accepts wire from 22 to 14 AWG. 0.375” (9.5mm) centers. UL94V-0
black thermoplastic. Brass, tin-plated terminals.
Steel, Ni-plated screws. 0.85” wide x 0.52” high x 4.40” long. Mounting holes on 8mm centers.
CAT # TS-210 $3.36 each
25 for $3.12 each • 100 for $2.88 each

CR2032 3 VOLT 180 MAH LITHIUM BUTTON CELL
CR2032. 3 volt, 180 mAh
0.787” diameter (20MM X 3.0MM).
CAT # LBAT-20 $1.00 each
10 for 85¢ each • 100 for 70¢ each

PRE-WIRED CONNECTORS WITH MATING HEADERS
Nylon connectors and mating pc mount, snap-lock headers.
Female socket connector is pre-wired with 11” long color-coded stranded wire.

<table>
<thead>
<tr>
<th>CAT#</th>
<th>pins</th>
<th>AWG</th>
<th>spacing</th>
<th>price</th>
</tr>
</thead>
<tbody>
<tr>
<td>CON-242</td>
<td>2</td>
<td>22</td>
<td>0.1”</td>
<td>$0.85 per set</td>
</tr>
<tr>
<td>CON-243</td>
<td>3</td>
<td>22</td>
<td>0.1”</td>
<td>$1.10 per set</td>
</tr>
<tr>
<td>CON-244</td>
<td>4</td>
<td>22</td>
<td>0.1”</td>
<td>$1.30 per set</td>
</tr>
</tbody>
</table>

2.1MM COAX POWER JACK, PANEL MOUNT
Normally closed shunt opens when plug is inserted. 2.1 mm mates with CAT# DCSID. Panel mount.
CAT # DCJ-21 $1.75 each
10 for $1.60 each • 100 for $1.45 each
SELF-FUSING RUBBER TAPE
Stretch and wrap self-fusing rubber tape for a moisture-tight, insulating seal on electrical connections. High resistance to salt water, steam and oil. Stretch a 2-3" piece of tape and wrap it spirally around the object with a 50% overlap. Can be removed easily without leaving any residue. 1" x 16.4' roll.
CAT# SFT-5 $4.50 each

ALLIGATOR CLIP JUMPERS
5 test leads. 2" Clips.
CAT # HDTL-5 $2.75 each

SOLDERLESS BREADBOARD, 400 CONTACTS
Design and change circuits quickly and cleanly. Breadboards accommodate all sizes of dips and discrete components with lead diameters up to 0.032". Interconnect with solid hook-up wire (#22 AWG recommended). Wires and components can be used and re-used many times without damage to board or components. 400 tie points. 300 contacts on main board and 50 contacts on each of two power distribution strips. Distribution strips are removable.
CAT # PB-400 $4.00 each
10 for $3.75 each

2-CONDUCTOR LOCKING CONNECTORS W/ LEADS
Mating pair of polarized multi-pin connectors with wire leads. Pins on 2.5mm centers. Black nylon housing with release on male side of connector. Female side of connector can be snap-mounted into a rectangular chassis mounting hole. 12" color-coded leads, 22 AWG stranded wire on both connectors.
CAT # CON-240 $1.35 each
10 for $1.20 each • 100 for 95¢ each

6-24 VDC GEAR MOTOR, 1:84 RATIO
Hennkwell# PZ22GR9120R-084BBH Good quality 22mm diameter planetary gear brush motor. Smooth, quiet operation. Wide operating range, 6-24Vdc. Dual ball bearings. Rated 142RPM @ 24Vdc, no-load. 113 RPM with load, 6mm diameter x 14mm shaft with hole, 2mm diameter shaft at rear of motor. Overall length of motor and gearbox, 60mm. Solder lug terminals.
CAT# DCM-9120 $7.95 each

12 VDC ULTRABRIGHT WHITE LED, 5MM
Water-clear 5mm package. Clear in off-state. 12Vdc operation, built-in resistor. Operates at lower voltages with lower brightness.
CAT # LED-12WP 50¢ each
10 for 45¢ each • 100 for 40¢ each

ECONOMY PROJECT BOXES
Black ABS plastic project enclosure. Inter-locking lid secured with self-tapping screws. Interior slots for PC boards. Includes hardware.
CAT # DCLK-1 $5.50 each

TIME - TEMPERATURE - VOLTAGE METER
3 in 1 module -- clock, thermometer, voltmeter, using the DS3231 chip. Can display any one or cycle through all three. Power supply voltage: DC5.0 ~ 30V. Temperature range: -40 to 85°C, resolution 0.1°. Voltmeter range: DC5 ~ 30V. Dimensions: 40 x 13mm. Requires connector we suggest our CAT# CON-240. Requires power supply, any 5-30 Vdc 300 mA.
CAT # DCLK-1 $5.50 each

THROUGH-BEAM PHOTO-ELECTRIC SENSOR PAIR
SICK Optics WS15-D1130 / WE15-A1130. Photo-electric sender and receiver pair detects the presence of an object when the beam between the two is interrupted. When the beam is broken, the receiver produces a current that can be used to trigger an audio-visual signal or relay-operated device. 5 Meter range. Built-in LED alignment and power indicators. Modules are 38 x 21 x 16.2mm and can be front or side-mounted. Front-mount hardware is included. Operate on 10-30Vdc. Power supply not included. cULus.
CAT # OSU-1130 Reduced Price

HIGH VOLTAGE TASER COMPONENT
Converts 3.7 Volts to approximately 18,000 Volts. The main component in a taser/ stun gun, it creates quite a spark and a loud crackling noise when the probes are within 1/2" inch of each other. 1.35" x 1.55" x 0.31". The output leads have pointed probes attached. Warning: Operate carefully!
CAT# HVS-01 Reduced Price
$9.90 – $7.50 each
2-DIGIT COUNTER WITH POWER SUPPLY
Large, two digit counter assembly. Advances one digit at a time, from 0 to 99 each time button is pushed. Each digit is 2.75" high and consists of 21 red 5mm LEDs. 5" x 4.18" black display board connected to 4.25" x 2" controller board. Five 4" pigtail wires. Included is a 9 Vdc power supply and a momentary, normally-open pushbutton switch.
CAT# CTR-92 $6.00 each
10 for $5.65 each

L.E.D. FLASHER KIT
Two L.E.D.’s flash in unison when a 9V battery is attached. This kit includes a p.c. board, all the parts and instructions to make a simple flasher circuit. A quick and easy project for anyone with basic soldering skills.
CAT# LEDKIT $2.50 each
100 for $2.25 each

ADJUSTABLE LED FLASHER
Two potentiometers adjust the flash rate of two LEDs. 9V operation. Battery not included.
CAT# MK-1021 $4.95 each

LED CHASER KIT
Build this variable speed LED chaser. 10 leds flash sequentially at whatever speed you set them for. Easy to build kit includes pc board, parts and instructions. Ideal for special lighting effects, costumes, etc. Operates on 3 to 9 volts. PC board is 5" x 2.25".
CAT# AEC $6.95 each • 10 for $65.00

EM4 ROBOT KIT
Owkit# OWI-891
Fun & easy-to-assemble Educational motorized robot kit with four modes: 6-leg walking cricket, motorized transmission trailer, grand rolling Beast and gear driven walking Grandpa-Bot! This 32 piece, 3 speed kit provides entertainment, imagination and education. Multi Ratio Gear Box. Requires one AA battery. Easy assembly and only requires a diagonal cutter and screwdriver. No soldering required. Assembled dimensions: 10.50" x 7.25" x 3.50". For ages 8+.
CAT# OWI-891 $20.95 each

6-IN-1 EDUCATIONAL SOLAR KIT
An excellent building kit for beginners, teaching children the benefits of solar energy while they create a toy that is fun to play with and requires no batteries. Children use the snap-together plastic parts to build six different motorized working models including an airboat, windmill, puppy, car, and two different planes. No tools required for assembly. Diagonal cutter may be needed to initially separate plastic parts. Kit includes plastic parts, 75mA solar cell, 1.2V electric motor, wires, springs and instruction book. For children 10+. May require adult assistance.
CAT # KFK-2 $8.25 each

10-LED SPINNING WHEEL
Push the button to start spinning. Speed gradually decreases, stops and one LED remains lit. Auto power-off. Low power consumption. Power supply: 9V battery (not included). 2.6” x 1.3”
CAT# MK-152 $7.95 each

40 EDUCATIONAL ELECTRONIC PROJECTS, BOOK & PARTS KIT
The Basics:
40 Exciting Labs eTron Circuit Labs. An immersive, hands-on curriculum of fun and illustrative electronics projects that teaches the fundamentals of electronics. Designed to be STEM (Science, Technology, Engineering, Math) Education Compliant for use in school curriculum. Beautiful color photos and illustrations lead you through a wide variety of labs covering a lot electronic fundamentals. Projects are designed to be breadboarded, taken apart and reused.
Complete Lab includes The Basics v2.0 manual (112 pages), and all the parts necessary for the 40 projects in this book, the basics parts kit, solderless circuit board and 9-Volt battery.
CAT# KT-40 $24.95 each
If you only wish to purchase the book, use CAT# BK-52 $15.95 each

WIND-UP TOY MOTOR W/ WHEELS
Create your own wind-up toy using this small wind-up motor. Attached is a pair of 9/16" diameter wheels on 1 1/8" wheel base. Winding shaft is 1 1/8" long with knurled nylon knob. Body dimensions 1 1/4" x 5/8" x 1/2". Running time is approximately 10 seconds.
CAT # WM-4 $1.00 each
10 for 85¢ each
# LIGHT EMITTING DIODES (LED)

## STANDARD T-1 3/4 (5mm)

<table>
<thead>
<tr>
<th>Color</th>
<th>Description</th>
<th>CAT#</th>
<th>Price 100</th>
<th>Price 1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>RED</td>
<td>diffused</td>
<td>LED-1</td>
<td>$1.00</td>
<td>$0.09</td>
</tr>
<tr>
<td>RED</td>
<td>high-brightness</td>
<td>LED-10R</td>
<td>$1.00</td>
<td>$0.08</td>
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<tr>
<td>GREEN</td>
<td>diffused</td>
<td>LED-2</td>
<td>$1.50</td>
<td>$0.12</td>
</tr>
<tr>
<td>YELLOW</td>
<td>diffused</td>
<td>LED-3</td>
<td>$1.50</td>
<td>$0.12</td>
</tr>
<tr>
<td>AMBER</td>
<td>diffused</td>
<td>LED-173</td>
<td>$1.50</td>
<td>$0.12</td>
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<tr>
<td>AMBER</td>
<td>water clear</td>
<td>LED-275</td>
<td>$1.00</td>
<td>$0.08</td>
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</tbody>
</table>

## ULTRA-BRIGHT T-1 3/4 (5mm)

Improved brightness and color consistency.

<table>
<thead>
<tr>
<th>Color</th>
<th>Description</th>
<th>CAT#</th>
<th>Price 100</th>
<th>Price 1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>AQUA</td>
<td>water clear in off state</td>
<td>LED-130</td>
<td>$0.60</td>
<td>$0.45</td>
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<tr>
<td>RED</td>
<td>water clear in off state</td>
<td>LED-257</td>
<td>$0.35</td>
<td>$0.28</td>
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<tr>
<td>RED</td>
<td>our &quot;brightest red,&quot; water clear in off-state</td>
<td>LED-233</td>
<td>$0.50</td>
<td>$0.40</td>
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<tr>
<td>BLUE</td>
<td>water clear in off-state, 20º viewing angle</td>
<td>LED-215</td>
<td>$0.60</td>
<td>$0.45</td>
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<tr>
<td>BLUE</td>
<td>water clear in off-state, Ammo-pack.</td>
<td>LED-153</td>
<td>$0.50</td>
<td>$0.40</td>
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<tr>
<td>GREEN</td>
<td>water clear 16K mcd</td>
<td>LED-57</td>
<td>$1.10</td>
<td>$0.90</td>
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<td>GREEN</td>
<td>water clear in off-state</td>
<td>LED-128</td>
<td>$0.75</td>
<td>$0.55</td>
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<tr>
<td>WHITE</td>
<td>water clear in off-state, 20º viewing angle</td>
<td>LED-214</td>
<td>$0.60</td>
<td>$0.45</td>
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<tr>
<td>YELLOW</td>
<td>water clear 3000 mcd</td>
<td>LED-72</td>
<td>$0.95</td>
<td>$0.75</td>
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<tr>
<td>ORANGE</td>
<td>water clear point source</td>
<td>LED-136</td>
<td>$0.25</td>
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</table>

## MINIATURE T-1 (3mm)

<table>
<thead>
<tr>
<th>Color</th>
<th>CAT#</th>
<th>Price 100</th>
<th>Price 1000</th>
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<tbody>
<tr>
<td>RED</td>
<td>MLED-1</td>
<td>$1.00</td>
<td>$0.08</td>
</tr>
<tr>
<td>GREEN</td>
<td>MLED-2</td>
<td>$1.25</td>
<td>$0.10</td>
</tr>
<tr>
<td>YELLOW</td>
<td>MLED-3</td>
<td>$1.25</td>
<td>$0.10</td>
</tr>
<tr>
<td>AMBER</td>
<td>MLED-7</td>
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<td>$0.08</td>
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<tr>
<td>BLUE</td>
<td>MLED-12</td>
<td>$1.25</td>
<td>$0.10</td>
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<tr>
<td>WHITE</td>
<td>LED-83</td>
<td>$0.95</td>
<td>$0.80</td>
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</tbody>
</table>

## 12 VDC LEDS

Bright 5mm round LEDs with built-in resistors for 12Vdc, No external resistor required. Works well on 4-12Vdc. Dimmer at lower voltages.

<table>
<thead>
<tr>
<th>Color</th>
<th>Lens Color</th>
<th>CAT#</th>
<th>Price 100</th>
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<tbody>
<tr>
<td>RED</td>
<td>Red</td>
<td>LED-12R</td>
<td>$0.50</td>
<td>$0.45</td>
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<tr>
<td>BLUE</td>
<td>Milky-white</td>
<td>LED-12BW</td>
<td>$0.50</td>
<td>$0.45</td>
</tr>
<tr>
<td>WHITE</td>
<td>Milky-white</td>
<td>LED-12W</td>
<td>$0.50</td>
<td>$0.45</td>
</tr>
<tr>
<td>GREEN</td>
<td>Green</td>
<td>LED-12G</td>
<td>$0.50</td>
<td>$0.45</td>
</tr>
<tr>
<td>WHITE</td>
<td>Water-clear</td>
<td>LED-12WP</td>
<td>$0.50</td>
<td>$0.45</td>
</tr>
<tr>
<td>BLUE</td>
<td>Water-clear</td>
<td>LED-12BP</td>
<td>$0.50</td>
<td>$0.45</td>
</tr>
<tr>
<td>YELLOW</td>
<td>Yellow</td>
<td>LED-12Y</td>
<td>$0.50</td>
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## BI-COLOR

### T 1 3/4 (5mm) RED / GREEN diffused

<table>
<thead>
<tr>
<th>CAT#</th>
<th>Price 1-99</th>
<th>Price 100</th>
<th>Price 1000</th>
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</thead>
<tbody>
<tr>
<td>LED-6</td>
<td>$0.50</td>
<td>$0.45</td>
<td>$0.35</td>
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</table>

Two leads. Reverse polarity to change color. Milky-white off-state.

### T 1 3/4 (5mm) RED / GREEN

<table>
<thead>
<tr>
<th>CAT#</th>
<th>Price 1-99</th>
<th>Price 100</th>
<th>Price 1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>LED-6WC</td>
<td>$0.50</td>
<td>$0.45</td>
<td>$0.35</td>
</tr>
</tbody>
</table>

Two leads. Reverse polarity to change color. Water-clear off-state.

Chicago Miniature # CMD119EGW.

Three-lead, rectangular LED lights red or green. Milky-white in off-state. Center, common lead is cathode. Led face is 2mm x 5mm.

### BI-COLOR FLASHING

5mm (T-1 3/4) LED alternately flashes red and green, approximately 180 flashes per minute. Milky-white in off-state.

### 3MM RED / WHITE TWO COLOR LED, 3-LEGS

3mm, T-1 red/white bi-polar LED. 3-legs. Milky-white off-state.

### RGB LED

4-lead, T 1 3/4 (5mm) red-green-blue LED.

One common lead (anode) and one lead for each color. Water-clear in off-state.

**ORDER TOLL FREE 1-800-826-5432**
500 ASSORTED 5MM LEDS
Keep a good selection of LEDs on hand for whatever your project might require. Red, green, blue, yellow and white 5mm LED assortment. 100 pieces of each color. Clear plastic divided box with locking lid.
CAT# LED-K2 $10.00 kit

5MM RGB COLOR CHANGING LEDS
Cycles through red-green-blue and combinations of RGB, yielding purple, white and other hues. 5mm water-clear package. Great for attention-getting displays, and jewelry.

Slow Rate -- fades in and out of each color approximately every 5 seconds. Operates on 3.5Vdc.
CAT# LED-276 65¢ each • 10 for 55¢ each • 100 for 40¢ each

Rapid Rate -- changes color every second for ten seconds, then changes color three or four times per second for ten seconds.
CAT# LED-231 75¢ each • 10 for 70¢ each • 100 for 50¢ each

Fluttering -- cycles through RGB colors at a very fast rate, giving the impression of a fluttering red / blue light. Milky-white in off-state.
CAT# LED-232 2 for $1.00 • 100 for 40¢ each

PRESS-FIT MOUNTING CLIPS FOR LEDS

2 PIECE HOLDER FOR 5MM LEDS Black plastic. Mounts in 6.3 mm hole.
CAT# HLED-4 10 for $1.20 • 100 for 9¢ each • 1000 for 8¢ each

CLIPLITE HOLDERS FOR 5MM LEDS Colored polycarbonate lens diffuses and increases viewing angle. Mounts in 0.25” hole in panels of 0.06” to 0.125” thickness. X= R (RED), G (GREEN), Y (YELLOW), C (CLEAR)
CAT# HLDCL-X 3 for $1.05 • 100 for 28¢ each • 1000 for 23¢ each

CLIPS FOR T-1 (3MM) LEDS 1 piece holder. Mounts in 4.5 mm hole.
CAT# HLED-5 10 for $1.00 • 100 for 8¢ each • 1000 for 7¢ each

3 WATT LEDS ON HEATSINK
Ultra-bright, high-power, long-life LEDs mounted on 20mm dia. star-type aluminum disc which serves as a heatsink and provides solder spots to simplify connection.

Note: Sensitive to misuse. No guarantee after voltage has been applied.

3 WATT LEDS

Color Description CAT# Each 100 1000
COOL WHITE 18000-20000K. 3.2-3.4V, 700mA. LED-248 1.68 1.51
WARM WHITE 3500-4200K. 3.2-3.4V, 700mA. LED-249 2.00 1.75
AMBER 600-610nm. 1.9-2.3V, 700mA. LED-253 3.00 2.70
RED 660nm. 1.9-2.3V 700 mA. LED-250 3.16 2.84
BLUE 460-470nm. 3.2-3.4V, 700mA. LED-261 2.28 2.05
IR 940nm. 1.5-1.7V 700 mA. LED-256 2.76 2.48

DRIVER FOR 3W LEDS
The 3 watt LEDs above can be operated on 12 Volts using this driver. Operate on 12 Vac or 12 Vdc.
CAT# LD-3 $3.25 each • 10 for $3.00 each

LENS FOR 1W, 3W & 5W LEDS
20mm lens in a 23mm plastic holder. Works well with our 1W, 3W and 5W LEDs, with & without star pc board ie. LED-248, LED-249, LED-5BL.
60° viewing angle CAT# LNS-57 $1.50 each • 10 for $1.35 each
45° viewing angle CAT# LNS-58 $1.50 each • 10 for $1.35 each

VISIT OUR WEBSITE - WWW.ALELELECTRONICS.COM
**COOL-WHITE DUAL LED ASSEMBLY**

Nice bright miniature LED light source for display and lighting applications. 2 high-brightness surface-mount white LEDs mounted on a 0.56” x 0.31” (7 x 14mm) pc board. Built-in circuitry for 8 Vac operation. Works on 8 Vdc as well. Two pcs pins on 5mm centers.

**CAT# LED-2W**

4 for $1.00 • 100 for 15¢ ea.

**SUPER-BRIGHT, HIGH-FLUX RED LED**

Ultra-bright, super-flux Piranha red LED. 7.62mm square, 4-pin DIP package aids heat dissipation. Designed for high-current, high-flux output.

**CAT# LED-912**

30¢ each
10 for 25¢ each • 100 for 20¢ each

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### LED INDICATOR ASSEMBLIES

#### 12 VDC W/ PLASTIC HOUSING

Threaded bushings with nuts. Solder-lug terminals. 2 sizes, 4 colors (red, green, blue, yellow).

10mm diameter lens. 10mm bushing.

**CAT# IND-10**(R,G,B,Y) $1.25 each
10 for $1.10 each

12mm diameter lens. 12mm bushing

**CAT# IND-12**(R,G,B,Y) $1.35 each
10 for $1.15 each

#### 12 VDC RED LED

5mm red diffused LED. Press-fit mounting in 0.25” diameter hole. Two 10” pigtail leads.

**CAT# LED-12VR** $1.15 each
10 for $1.05 each • 100 for 90¢ each

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#### LED INDICATOR -- RESISTOR REQUIRED

5mm LED in a 10mm dia. chrome bezel. 8mm dia. threaded bushing with mounting hardware. Red Point-source. 15° viewing angle. Operates on any DC voltage as long as an appropriate resistor is connected. See our LED Hook-up guide in Spec Sheets online. Red Point-source -- 15° viewing angle

**CAT# IND-15R** $1.50
$1.00 each
10 for 85¢ each

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#### 12 VDC W/ CHROME HOUSING

5mm diameter LED in 10mm diameter chrome bezel. 8mm threaded bushing with mounting hardware. Extends 34mm below mounting panel. Available in Red (R), Blue (B), Green (G) and Amber (A).

**CAT# IND-160**(R,B,G, A) $2.25 each

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### 12 VDC LED MODULES & STRIPS

#### WEATHER-RESISTANT 12 VDC LED MODULE, COOL-WHITE

Miniature lensed weather-resistant LED module provides 160-degrees of cool white light. Narrow footprint and adhesive backing makes it easy to mount, even on curved surfaces. IP67 rating for outdoor use. Wired together in 20 module strands, with LEDs on 2.36” centers.

Can be purchased individually.

**CAT # LED-161CW** $0.80 module
20 for 70¢ per module

#### 12 VDC MODULE STRIPS

Rugged, high-luminosity 3-LED modules suitable for indoor or outdoor, shelf, display or sign lighting. Operates on 12Vdc. Dimmable. Covered lens protects against humidity and sun damage. Double-stick tape on back of each module for attachment to clean, flat surface. Hole for screw mounting. Modules linked on 2-conductor 18AWG zip cord, 161mm (6.5”) center-to-center spacing. Maximum string is 50 modules, 10 meters (32Ft). 0.72W per module, 36W per string.

UL, CE. Can be used w/ dimmer CAT# DMR-8

**Warm White** **CAT# LS-123WW**

**Cool White** **CAT# LS-123CW**

**Red** **CAT# LS-123R**

**Yellow** **CAT# LS-123Y**

**Green** **CAT# LS-123G**

**Blue** **CAT# LS-123B**

**Cool White** **CAT# LS-123HCW**

High-Power. 1.2W per module. 60W (50 x 1.2W) per string.

$2.65 per module
10 for $2.35 per module
50 for $ 2.00 per module

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#### 12 VDC LED LIGHT STRIPS

Adhesive-backed ribbon with surface-mount ultrabright LEDs. Ideal accent lighting in auto or home. Great for under cabinet or shelf lighting. Dimmable. Can be cut every third LED or 50mm (approx. 0.2”) and each segment can be lit independently. Wires can be soldered directly to solder spots on ribbon tape.

5 Metres, 100 segments per continuous strip. Can be connected end-to-end for longer strips. Can be purchased in 2’ (3-led) segments.

**Cool-white** **CAT# LS-12-CW**

**Warm-white** **CAT# LS-12-WW**

**Neutral-white** **CAT# LS-12-NW**

$1.00 per 3-led segment
10 segments 90¢ per segment
100 segments 75¢ per segment

$1.50 per 3-led segment
10 segments $1.30 per segment
100 segments $1.00 per segment

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ORDER TOLL FREE 1-800-826-5432