

LED Lamps and Infrared Products



LED Thru Hole Lamps

Standard Lamps

| Stock No. | Mfr.'s Type | Color  | Lens     | Luminous Intensity | Viewing Angle | EACH  |
|-----------|-------------|--------|----------|--------------------|---------------|-------|
|           |             |        |          |                    |               | 1-499 |
| 782-0010  | HLMP-K101   | AlGaAs | Diffused | 45.0 mcd @ 20 mA   | 60°           | .20   |
| 782-0135  | HLMP-K105   | AlGaAs | Clear    | 65.0 mcd @ 20 mA   | 45°           | .17   |
| 782-0137  | HLMP-K401   | Orange | Diffused | 5.5 mcd @ 10 mA    | 60°           | .17   |
| 782-0015  | HLMP-1301   | HER    | Diffused | 5.5 mcd @ 10 mA    | 60°           | .17   |
| 782-0020  | HLMP-1401   | Yellow | Diffused | 6.0 mcd @ 10 mA    | 60°           | .18   |
| 782-1503  | HLMP-1503   | Green  | Diffused | 5.0 mcd @ 10 mA    | 60°           | .16   |
| 782-0210  | HLMP-1321   | HER    | Diffused | 30.0 mcd @ 10 mA   | 45°           | .17   |
| 782-0220  | HLMP-1521   | Green  | Diffused | 22.0 mcd @ 10 mA   | 45°           | .21   |

|          |           |        |          |                  |     |     |
|----------|-----------|--------|----------|------------------|-----|-----|
| 782-0055 | HLMP-D101 | AlGaAs | Diffused | 70.0 mcd @ 20 mA | 65° | .24 |
| 782-0057 | HLMP-D401 | Orange | Diffused | 7.0 mcd @ 10 mA  | 60° | .12 |
| 782-0060 | HLMP-3301 | HER    | Diffused | 7.0 mcd @ 10 mA  | 60° | .12 |
| 782-0065 | HLMP-3401 | Yellow | Diffused | 8.0 mcd @ 10 mA  | 60° | .29 |
| 782-0070 | HLMP-3507 | Green  | Diffused | 5.2 mcd @ 10 mA  | 60° | .24 |

High Performance Lamps

|          |           |            |       |                   |     |     |
|----------|-----------|------------|-------|-------------------|-----|-----|
| 782-7800 | HLMP-NL06 | Amber      | Clear | 220.0 mcd @ 20 mA | 60° | .18 |
| 782-7801 | HLMP-NH04 | Red-Orange | Clear | 210.0 mcd @ 20 mA | 60° | .17 |
| 782-6134 | HLMA-KH00 | Red-Orange | Clear | 200.0 mcd @ 20 mA | 45° | .45 |
| 782-6132 | HLMA-KL00 | Amber      | Clear | 200.0 mcd @ 20 mA | 45° | .59 |

Surface Mount LEDs

Subminiature Solid State Lamps

| Stock No. | Mfr.'s Type | Color  | Package Size | Lens     | Luminous Intensity | Forward Voltage | EACH  |
|-----------|-------------|--------|--------------|----------|--------------------|-----------------|-------|
|           |             |        |              |          |                    |                 | 1-499 |
| 782-0120  | HLMP-6300   | HER    | 1.7 mm       | Diffused | 10 mcd @ 10 mA     | 1.8 V (10 mA)   | .21   |
| 782-0125  | HLMP-6400   | Yellow | 1.7 mm       | Diffused | 3 mcd @ 10 mA      | 2.0 V (10 mA)   | .24   |
| 782-0130  | HLMP-6500   | Green  | 1.7 mm       | Diffused | 3 mcd @ 10 mA      | 2.1 V (10 mA)   | .24   |

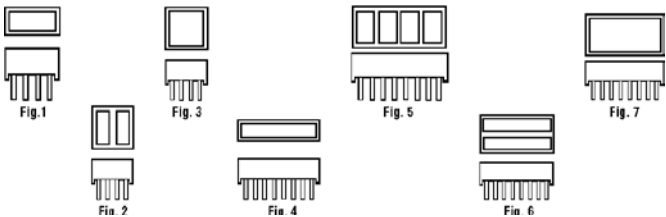
Surface Mount Chip LEDs

| Stock No. | Mfr.'s Type | Color  | Footprint     | Luminous Intensity | Forward Voltage | Viewing Angle | EACH  |
|-----------|-------------|--------|---------------|--------------------|-----------------|---------------|-------|
|           |             |        |               |                    |                 |               | 1-499 |
| 782-6150  | HSMS-C650   | HER    | 3.2 × 1.60 mm | 5 mcd @ 20 mA      | 1.9 V @ 20 mA   | 155°          | .23   |
| 782-6162  | HSMY-C650   | Yellow | 3.2 × 1.60 mm | 5 mcd @ 20 mA      | 2.1 V @ 20 mA   | 155°          | .32   |
| 782-6164  | HSMG-C650   | Green  | 3.2 × 1.60 mm | 9 mcd @ 20 mA      | 2.2 V @ 20 mA   | 155°          | .30   |
| 782-6168  | HSMS-C670   | HER    | 2.0 × 1.25 mm | 5 mcd @ 20 mA      | 1.9 V @ 20 mA   | 155°          | .23   |
| 782-6172  | HSMY-C670   | Yellow | 2.0 × 1.25 mm | 5 mcd @ 20 mA      | 2.1 V @ 20 mA   | 155°          | .23   |
| 782-6174  | HSMG-C670   | Green  | 2.0 × 1.25 mm | 9 mcd @ 20 mA      | 2.2 V @ 20 mA   | 155°          | .32   |

Surface Mount Flip Chip LEDs

|          |           |       |                     |               |               |      |     |
|----------|-----------|-------|---------------------|---------------|---------------|------|-----|
| 782-8200 | HSMG-C170 | Green | 2.0 × 1.25 × 1.1 mm | 9 mcd @ 20 mA | 2.3 V @ 20 mA | 165° | .31 |
| 782-0190 | HSMS-C190 | HER   | 1.6 × 0.80 × 0.6 mm | 5 mcd @ 20 mA | 2.0 V @ 20 mA | 165° | .07 |
| 782-6110 | HSMG-C110 | Green | 2.1 × 1.30 × 0.7 mm | 9 mcd @ 20 mA | 2.3 V @ 20 mA | 165° | .10 |
| 782-6260 | HSMG-C260 | Green | 3.2 × 1.25 × 1.1 mm | 9 mcd @ 20 mA | 2.3 V @ 20 mA | 165° | .14 |

LED Light Bars

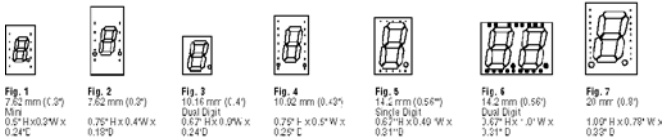


LED light bars designed for fixed message annunciation. All are configured in a dual-in-line DIP package except types HLMP-2300, -2350, -2400, -2450, -2500, -2550 which are SIP packages. Each of the eight X-Y stackable package styles offers one, two or four large, uniformly illuminated light emitting surfaces. 0.100" centers; flush mountable. Available in high-efficiency red, yellow and high-performance green colors. Diffused lens. Ideal use for backlighting legends or simple indicators. For panel and legend mount capabilities, order corresponding part separately in table below. Replace the X in stock number with following color code: 1 — red; 2 — yellow; 3 — green.

| Stock No. | Mfr.'s Type      |              |             | Fig. | No. of Pins | Device Size L × W × H  | Light Emitting Areas |                | EACH |
|-----------|------------------|--------------|-------------|------|-------------|------------------------|----------------------|----------------|------|
|           | H. E. Red* HLMP- | Yellow HLMP- | Green HLMP- |      |             |                        | No.                  | Size           |      |
| 782-069X  | 2300             | 2400         | 2500        | 1    | 4           | 0.400 × 0.195 × 0.245" | 1                    | 0.350 × 0.150" | 1.11 |
| 782-075X  | 2600             | 2700         | 2800        | 2    | 8           | 0.400 × 0.400 × 0.245" | 2                    | 0.350 × 0.150" | 1.55 |
| 782-090X  | 2655             | 2755         | 2855        | 3    | 8           | 0.400 × 0.400 × 0.245" | 1                    | 0.350 × 0.350" | 1.52 |
| 782-070X  | 2350             | 2450         | 2550        | 4    | 8           | 0.800 × 0.195 × 0.245" | 1                    | 0.750 × 0.150" | 2.05 |
| 782-080X  | 2620             | 2720         | 2820        | 5    | 16          | 0.800 × 0.400 × 0.245" | 4                    | 0.350 × 0.150" | 2.33 |
| 782-085X  | 2635             | 2735         | 2835        | 6    | 16          | 0.800 × 0.400 × 0.245" | 2                    | 0.150 × 0.750" | 2.39 |
| 782-100X  | 2685             | 2785         | 2885        | 7    | 16          | 0.800 × 0.400 × 0.245" | 1                    | 0.350 × 0.750" | 2.94 |

\*H.E. = High efficiency.

Seven-Segment Right-Hand Decimal Point Displays



Solid-state LED numeric displays for applications such as instruments, weighing scales, meters and point-of-sale terminals. Dual-in-line package. Available in character sizes from 7.62 mm (0.3") to 20 mm (0.8") and colors, red, AlGaAs deep red, high-efficiency red (HER in tables below), yellow and high-performance green, AlGaAs displays are tested and selected for their excellent low current characteristics to ensure that the segments match at low currents. Type numbers ending in "1" are common anode; Type numbers ending in "3" and "0" are common cathode.

| Stock No. | Mfr.'s Type | Fig. | Color               | Typical Intensity Per Segment | EACH |
|-----------|-------------|------|---------------------|-------------------------------|------|
|           |             |      |                     |                               | 1-49 |
| 782-0320  | HDSP-7501   | 1    | High Efficiency Red | 980 µcd @ 5 mA                | 1.97 |
| 782-0325  | HDSP-7503   | 1    | High Efficiency Red | 980 µcd @ 5 mA                | 1.97 |
| 782-1020  | HDSP-U301   | 1    | Yellow              | 480 µcd @ 5 mA                | 2.20 |
| 782-0345  | HDSP-7803   | 1    | Green               | 3000 µcd @ 10 mA              | 1.99 |
| 782-0340  | HDSP-7801   | 1    | Green               | 6800 µcd/seg. @ 20 mA DC      | 1.99 |
| 782-0360  | 5082-7611   | 2    | High Efficiency Red | 800 µcd @ 5 mA                | 2.18 |
| 782-0365  | 5082-7613   | 2    | High Efficiency Red | 800 µcd @ 5 mA                | 1.99 |
| 782-0390  | HDSP-3601   | 2    | Green               | 2700 µcd @ 10 mA              | 2.25 |
| 782-0082  | HDSP-1501   | 3    | Green               | 3500 µcd @ 10 mA              | 1.92 |
| 782-0420  | 5082-7651   | 4    | High Efficiency Red | 1115 µcd @ 5 mA               | 2.88 |
| 782-0425  | 5082-7653   | 4    | High Efficiency Red | 1115 µcd @ 5 mA               | 2.04 |
| 782-0480  | HDSP-H101   | 5    | AlGaAs Red          | 700 µcd @ 1 mA                | 2.17 |
| 782-0485  | HDSP-H103   | 5    | AlGaAs Red          | 700 µcd @ 1 mA                | 2.06 |
| 782-0490  | HDSP-5501   | 5    | High Efficiency Red | 2800 µcd @ 10 mA              | 2.43 |
| 782-0495  | HDSP-5503   | 5    | High Efficiency Red | 2800 µcd @ 10 mA              | 2.48 |
| 782-0520  | HDSP-5701   | 5    | Yellow              | 1800 µcd @ 10 mA              | 2.00 |
| 782-0540  | HDSP-5601   | 5    | Green               | 2500 µcd @ 10 mA              | 1.60 |
| 782-0545  | HDSP-5603   | 5    | Green               | 500 µcd @ 10 mA               | 1.78 |
| 782-0500  | HDSP-5521   | 6    | High Efficiency Red | 2800 µcd @ 10 mA              | 2.80 |
| 782-0530  | HDSP-5721   | 6    | Yellow              | 1800 µcd @ 10 mA              | 2.59 |
| 782-0575  | HDSP-3903   | 7    | High Efficiency Red | 7000 µcd @ 100 mA 1/5df       | 3.01 |

Alphanumeric LED Display



Solid-state alphanumeric LED displays are available in 16 segment and 5 × 7 dot matrix fonts. A low power on-board CMOS IC contains all control logic and drive circuitry for these "smart" displays. HPDL-1414 and HPDL-2416 decode 64 ASCII characters in a "British Flag" layout; types HDLR-, HDLO-, HDLA- and HDLG-2416 decode 128 ASCII characters in a pleasing dot matrix font. Types HDSP-2107 and HDSP-2110 through -2113 decode 128 ASCII characters, have an on-board RAM that stores up to 16 user-definable characters, and feature flashing characters, full display blinking, multi-level dimming, and self test. The HCMS-2961 through -2975 serial-input displays are dot-addressable to support nearly unlimited user-defined symbols. All of these devices are ideal for a variety of applications in avionics, industrial control, instrumentation, and telecommunications.

| Stock No. | Mfr.'s Type | Fig. | Color      | Description                                                                                                                                       | EACH  |
|-----------|-------------|------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------|
|           |             |      |            |                                                                                                                                                   | 1-99  |
| 782-0600  | HPDL-1414†  | 1    | Red        | †2.85 mm (0.112") †4.1 mm (0.16")<br>4 Character, 16 Segment, Monolithic Smart, Alphanumeric Display, Operating Temperature Range: -40°C to +85°C | 16.34 |
| 782-0615  | HDLO-2416   | 2    | HER*       | 5.00 mm (0.20") 5 × 7 Dot Matrix, 4 Character Smart                                                                                               | 19.30 |
| 782-0635  | HDSP-2112   | 3    | HER*       | 5.00 mm (0.20") 5 × 7 Flexible Dot Matrix                                                                                                         | 43.85 |
| 782-0645  | HDSP-2111   | 3    | Yellow     | 19.6 mm (0.77") Package Height                                                                                                                    | 43.30 |
| 782-0650  | HDSP-2113   | 3    | Green      | 8 Character Smart, Parallel Input, Decodes 128 ASCII Characters                                                                                   | 45.58 |
| 782-0695  | HDSP-2502   | 4    | HER*       | 7.00 mm (0.27") 5 × 7 Flexible Dot Matrix<br>19.6 mm (0.77") Package Height<br>8 Character Smart, Parallel Input, Decodes 128 ASCII Characters    | 45.68 |
| 782-0715  | HDSP-2534   | 5    | AlGaAs Red | 4.57 mm (0.18") 5 × 7 Flexible Dot Matrix                                                                                                         | 51.63 |
| 782-0720  | HDSP-2532   | 5    | HER*       | 11.4 mm (0.45") Slimline Package Height                                                                                                           | 41.71 |
| 782-0730  | HDSP-2531   | 5    | Yellow     | 8 Character Smart, Parallel Input, Decodes 128 ASCII Characters                                                                                   | 41.71 |
| 782-0735  | HDSP-2533   | 5    | Green      |                                                                                                                                                   | 45.05 |
| 782-0755  | HCMS-2961   | 6    | Yellow     | 5.00 mm (0.20") 5 × 7 Flexible Dot Matrix                                                                                                         | 26.47 |
| 782-0760  | HCMS-2963   | 6    | Green      | 4 Character Smart, Serial Input, Individual Dot Control                                                                                           | 20.84 |
| 782-0770  | HCMS-2972   | 7    | HER*       | 5.00 mm (0.20") 5 × 7 Flexible Dot Matrix                                                                                                         | 49.12 |
| 782-0775  | HCMS-2974   | 7    | Orange     | 8 Character Smart, Serial Input, Individual Dot Control                                                                                           | 41.71 |

\*High efficiency red.

Turn To Section 1 For Allied Office Addresses and Local Phone Numbers

ALLIED ► 531