

SIEMENS SUPER-RED HLMP-2300/-2600 Series

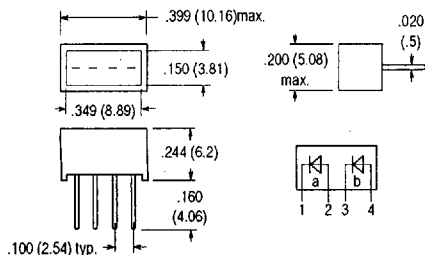
YELLOW HLMP-2400/-2700 Series

GREEN HLMP-2500/-2800 Series

LED Light Bars

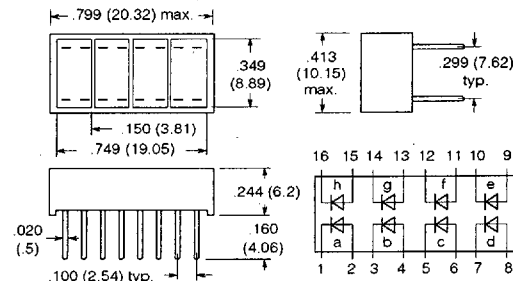
Package Dimensions in Inches (mm)

HLMP-2300, -2400, -2500



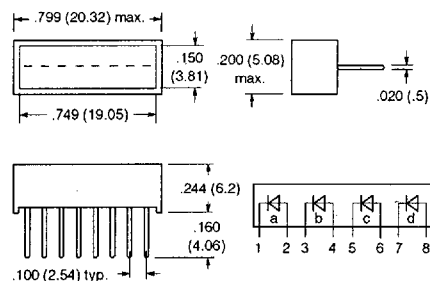
Light emitting area: .350 x .149 (8.9 x 3.8)

HLMP-2620, -2720, -2820



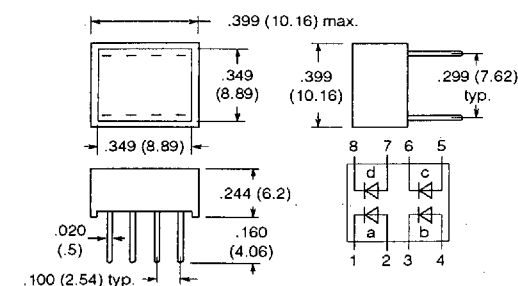
Light emitting area: .747 x .350 (19.0 x 8.9)

HLMP-2350, -2450, -2550



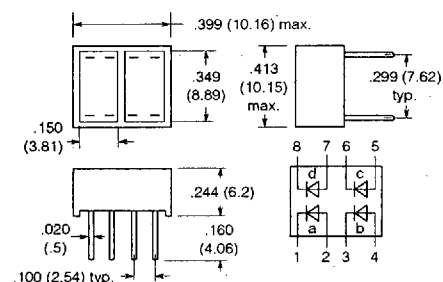
Light emitting area: .747 x .149 (19.0 x 3.8)

HLMP-2655, -2755, -2855



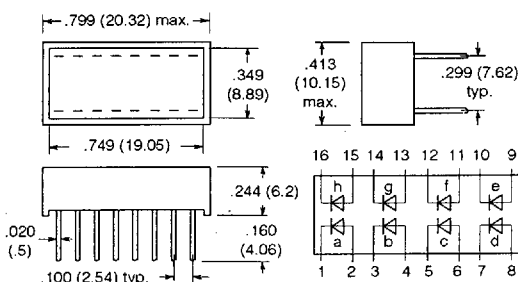
Light emitting area: .350 x .350 (8.9 x 8.9)

HLMP-2600, -2700, -2800



Light emitting area: .350 x .350 (8.9 x 8.9)

HLMP-2685, -2785, -2885



Light emitting area: .747 x .350 (19.0 x 8.9)

FEATURES

- Large Bright, Uniform Light Emitting Areas
- Excellent On-Off Contrast
- Mounts Easily on PC Boards or Industry Standard SIP/DIP Sockets

- X-Y Stackable
- Suitable for Multiplex Operation
- IC Compatible

See graph numbers 1E, 2A, 3F, 5A, 6G, 8N, 9L, 10H, 11D at the end of this section.

Maximum Ratings

Operating Temperature Range (T_{OP})	-20°C to +85°C
Storage Temperature Range (T_{STG})	-40°C to +85°C
Lead Soldering Temperature, 1.6 mm from base (T_S) $t=3$ s	260°C
Peak Forward Current/LED Chip (I_{FPEAK}), $T_A=50^\circ\text{C}$, $t_p=2$ ms	
Super-Red, Green	90 mA
Yellow	60 mA
Time Average Forward Current/LED Chip, $T_A=25^\circ\text{C}$	
Super-Red, Green	25 mA
Yellow	20 mA
Reverse Voltage/LED Chip (V_R)	6 V
DC Forward Current/LED Chip (I_F), $T_A=50^\circ\text{C}$	
Super-Red, Green	30 mA
Yellow	25 mA
Average Power Dissipation (P_{TOT}) $T_A=25^\circ\text{C}$	
Super-Red, Green	135 mW
Yellow	85 mW

Notes:

1. Super-red and green: derate above $T_A=25^\circ\text{C}$ at 1.8 mW/ $^\circ\text{C}$ per LED chip. Yellow: $T_A=50^\circ\text{C}$ at 1.8 mW/ $^\circ\text{C}$ per LED chip. See Figure 2.
2. See Figure 1 for pulsed operating conditions.
3. Super-red and green: derate above $T_A=50^\circ\text{C}$ at 0.50 mA/ $^\circ\text{C}$ per LED chip. Yellow: $T_A=60^\circ\text{C}$ at 0.50 mA/ $^\circ\text{C}$ per LED chip. See Figure 3.

Super-Red Characteristics ($T_A=25^\circ\text{C}$)

Parameter	Values			
	Symbol	Min.	Typ	Unit
Peak Wavelength	λ_{PEAK}		635	nm
Dominant Wavelength	λ_{DOM}		626	nm
Forward Voltage $I_F=20$ mA	V_F		2.0	V
Breakdown Voltage $I_R=100$ μA	V_R	6	15	V
Thermal Resistance	R_{thJA}		150	K/W per LED chip
Luminous Intensity per Light Emitting Area HLMP2300				
$I_F=20$ mA	I_V	6	23	mcd
$I_F=60$ mA PK:1:3	I_V		26	mcd
HLMP2350				
$I_F=20$ mA	I_V	13	45	mcd
$I_F=60$ mA PK:1:3	I_V		52	mcd
HLMP2600				
$I_F=20$ mA	I_V	6	22	mcd
$I_F=60$ mA PK:1:3	I_V		25	mcd
HLMP2620				
$I_F=20$ mA	I_V	6	25	mcd
$I_F=60$ mA PK:1:3	I_V		29	mcd
HLMP2655				
$I_F=20$ mA	I_V	13	43	mcd
$I_F=60$ mA PK:1:3	I_V		49	mcd
HLMP2685				
$I_F=20$ mA	I_V	22	80	mcd
$I_F=60$ mA PK:1:3	I_V		92	mcd

Yellow Characteristics ($T_A=25^\circ\text{C}$)

Parameter	Symbol	Values			Unit
		Min.	Typ		
Peak Wavelength	λ_{PEAK}		583		nm
Dominant Wavelength	λ_{DOM}		585		nm
Forward Voltage $I_F=20$ mA	V_F		2.1		V
Breakdown Voltage $I_R=100$ μA	V_R	6	15		V
Thermal Resistance	R_{thJA}		150		K/W per LED chip
Luminous Intensity per Light Emitting Area HLMP2400					
$I_F=20$ mA	I_V	6	20		mcd
$I_F=60$ mA PK:1:3	I_V		24		mcd
HLMP2450					
$I_F=20$ mA	I_V	13	38		mcd
$I_F=60$ mA PK:1:3	I_V		46		mcd
HLMP2700					
$I_F=20$ mA	I_V	6	18		mcd
$I_F=60$ mA PK:1:3	I_V		22		mcd
HLMP2720					
$I_F=20$ mA	I_V	6	18		mcd
$I_F=60$ mA PK:1:3	I_V		22		mcd
HLMP2755					
$I_F=20$ mA	I_V	13	35		mcd
$I_F=60$ mA PK:1:3	I_V		43		mcd
HLMP2785					
$I_F=20$ mA	I_V	26	70		mcd
$I_F=60$ mA PK:1:3	I_V		85		mcd

Green Characteristics ($T_A=25^\circ\text{C}$)

Parameter	Symbol	Values			Unit
		Min.	Typ		
Peak Wavelength	λ_{PEAK}		565		nm
Dominant Wavelength	λ_{DOM}		572		nm
Forward Voltage $I_F=20$ mA	V_F		2.2		V
Breakdown Voltage $I_R=100$ μA	V_R	6	15		V
Thermal Resistance	R_{thJA}		150		K/W per LED chip
Luminous Intensity per Light Emitting Area HLMP2500					
$I_F=20$ mA	I_V	5	25		mcd
$I_F=60$ mA PK:1:3	I_V		28		mcd
HLMP2550					
$I_F=20$ mA	I_V	11	50		mcd
$I_F=60$ mA PK:1:3	I_V		56		mcd
HLMP2800					
$I_F=20$ mA	I_V	5	25		mcd
$I_F=60$ mA PK:1:3	I_V		28		mcd
HLMP2820					
$I_F=20$ mA	I_V	5	25		mcd
$I_F=60$ mA PK:1:3	I_V		28		mcd
HLMP2855					
$I_F=20$ mA	I_V	11	50		mcd
$I_F=60$ mA PK:1:3	I_V		56		mcd
HLMP2885					
$I_F=20$ mA	I_V	22	100		mcd
$I_F=60$ mA PK:1:3	I_V		11		mcd