



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

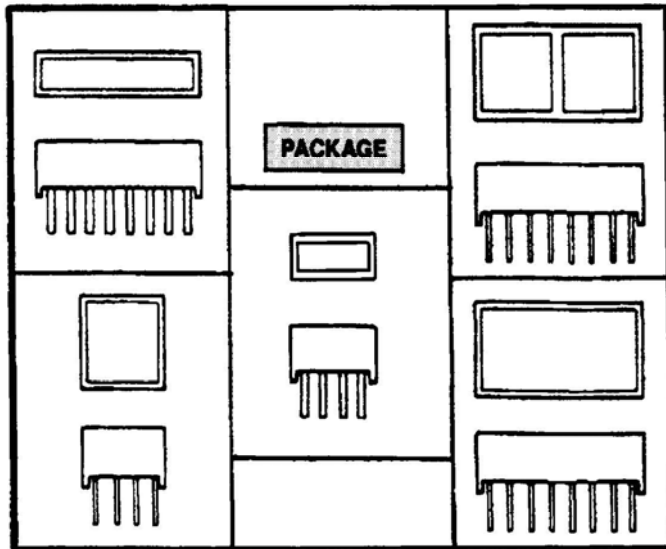
Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



HIGH EFFICIENCY RED **HLMP-2300/2600 SERIES** YELLOW **HLMP-2400/2700 SERIES** HIGH EFFICIENCY GREEN **HLMP-2500/2800 SERIES**



DESCRIPTION

These LED Light Bar series are bright, large emitting area, rectangular devices that are designed for backlighting legend/message annunciators.

These devices are offered in single-in-line and dual-in-line packages that contain single or segmented light-emitting area. Each package style is offered in High Efficiency Red, Yellow, or Green emission color.

FEATURES

- Large area, uniform, bright light-emitting surfaces
- Select from six package styles
- Choice of three colors
- Categorized for intensity and color
- X-Y stackable
- Easily driven with I.C.s
- Alternate source for popular backlighting components

MODEL NUMBERS

PART NO.	COLOR	DESCRIPTION		PACKAGE	PIN OUT
HLMP-2300	High Efficiency Red	2 LED Single-in-line		A	A
HLMP-2400	Yellow	0.35 in. x 0.15 in. Area			
HLMP-2500	High Efficiency Green				
HLMP-2350	High Efficiency Red	4 LED Single-in-line		B	B
HLMP-2450	Yellow	0.75 in. x 0.15 in. Area			
HLMP-2550	High Efficiency Green				
HLMP-2655	High Efficiency Red	4 LED Dual-in-line		C	C
HLMP-2755	Yellow	0.35 in. x 0.35 in. Area			
HLMP-2855	High Efficiency Green				
HLMP-2670	High Efficiency Red	Dual 0.35 in. x 0.35 in. Area		D	D
HLMP-2770	Yellow	Dual-in-line package			
HLMP-2870	High Efficiency Green				
HLMP-2685	High Efficiency Red	8 LED 0.35 in. x 0.75 in. Area		E	D
HLMP-2785	Yellow	Dual-in-line package			
HLMP-2885	High Efficiency Green				

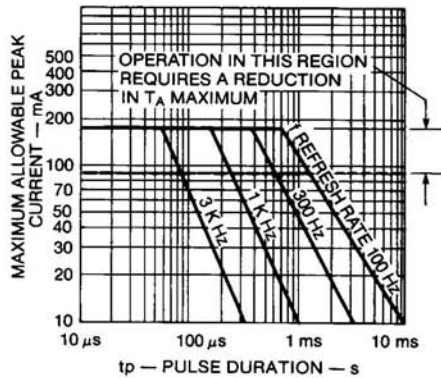
ELECTRO-OPTICAL CHARACTERISTICS (T_A=25°C)									
HIGH EFFICIENCY RED									
PARAMETER	SYMBOL	HLMP					UNIT	TEST CONDITIONS	
		-2300	-2350	-2655	-2670	-2685			
Luminous Intensity	min.		6.0	13	13	13	22	mcd	I _F =20 mA
	typ.	I _V	23	45	43	45	80	mcd	I _F =20 mA
	typ.		30	50	50	50	100	mcd	I _F =60 mA pK, 1:3 D.F.
Forward voltage	max.	V _F	2.6	2.6	2.6	2.6	2.6	V	I _F =20 mA
	typ.		2.0	2.0	2.0	2.0	2.0		
Peak wavelength	typ.	λ _p	630	630	630	630	630	nm	
Dominant wavelength	typ.	λ _d	626	626	626	626	626	nm	
Capacitance	typ.	C	45	45	45	45	45	pF	V _F =0, f=1 MHz
Reverse voltage	min.	V _R	6	6	6	6	6	V	I _R =100 μA
Thermal resistance	typ.	θ _{JL}	150	150	150	150	150	°C/W/ LED chip	

ELECTRO-OPTICAL CHARACTERISTICS (T_A=25°C)									
YELLOW									
PARAMETER	SYMBOL	HLMP					UNIT	TEST CONDITIONS	
		-2400	-2450	-2755	-2770	-2785			
Luminous Intensity	min.		6	13	13	13	26	mcd	I _F =20 mA
	typ.	I _V	20	38	35	35	70	mcd	I _F =20 mA
	typ.		33	60	60	60	115	mcd	I _F =60 mA pK, 1:3 D.F.
Forward voltage	max.	V _F	2.6	2.6	2.6	2.6	2.6	V	I _F =20 mA
	typ.		2.1	2.1	2.1	2.1	2.1		
Peak wavelength	typ.	λ _p	585	585	585	585	585	nm	
Dominant wavelength	typ.	λ _d	588	588	588	588	588	nm	
Capacitance	typ.	C	35	35	35	35	35	pF	V _F =0, f=1 MHz
Reverse voltage	min.	V _R	6	6	6	6	6	V	I _R =100 μA
Thermal resistance	typ.	θ _{JL}	150	150	150	150	150	°C/W/ LED chip	

ELECTRO-OPTICAL CHARACTERISTICS (T_A=25°C)									
HIGH EFFICIENCY GREEN									
PARAMETER	SYMBOL	HLMP					UNIT	TEST CONDITIONS	
		-2500	-2550	-2855	-2870	-2885			
Luminous Intensity	min.		5	11	11	11	22	mcd	I _F =20 mA
	typ.	I _V	25	50	50	50	100	mcd	I _F =20 mA
	typ.		38	75	75	75	150	mcd	I _F =60 mA pK, 1:3 D.F.
Forward voltage	max.	V _F	2.6	2.6	2.6	2.6	2.6	V	I _F =20 mA
	typ.		2.2	2.2	2.2	2.2	2.2		
Peak wavelength	typ.	λ _p	565	565	565	565	565	nm	
Dominant wavelength	typ.	λ _d	567	567	567	567	567	nm	
Capacitance	typ.	C	40	40	40	40	40	pF	V _F =0, f=1 MHz
Reverse voltage	min.	V _R	6	6	6	6	6	V	I _R =100 μA
Thermal resistance	typ.	θ _{JL}	150	150	150	150	150	°C/W/ LED chip	

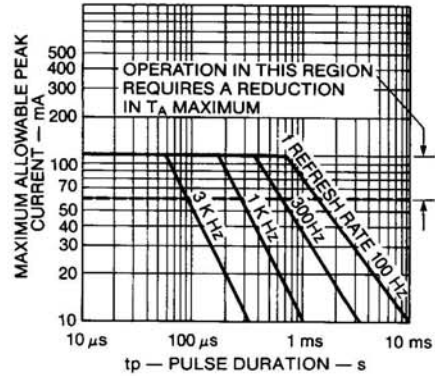
TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES

(25°C Free Air Temperature Unless Otherwise Specified)



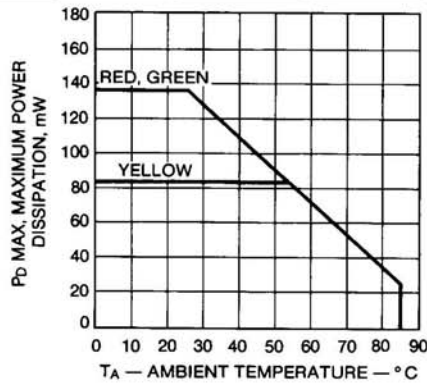
C2013

Fig. 1. Maximum Tolerable Peak Current per LED Chip vs. Pulse Duration for HLMP-23X0/-26XX/-25X0/-28XX



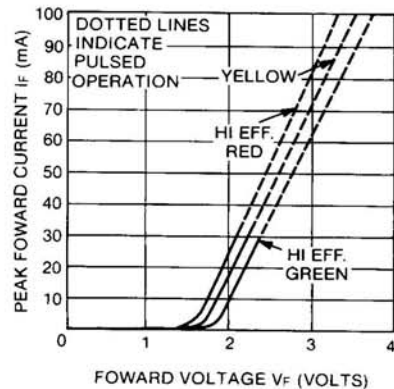
C2014

Fig. 2. Maximum Tolerable Peak Current per LED Chip vs. Pulse Duration for HLMP-24X0/-27XX Devices



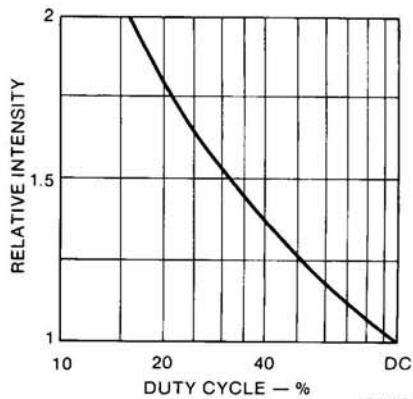
C2025

Fig. 3. Maximum Power Dissipation per LED vs. Ambient Temperature



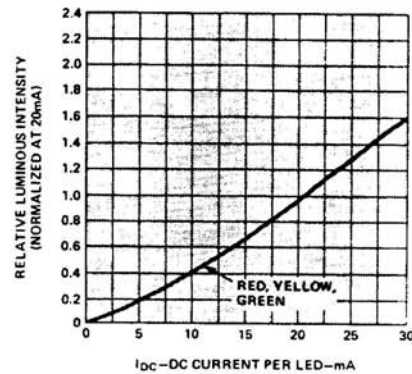
C1833A

Fig. 4. Forward Current vs. Forward Voltage



C1194C

Fig. 5. Luminous Intensity vs. Duty Cycle



C3077

Fig. 6. Luminous Intensity vs. Forward Current



LED LIGHT BARS

TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES
(25°C Free Air Temperature Unless Otherwise Specified) (Cont'd)

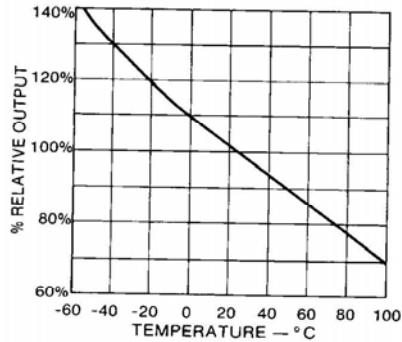
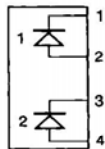


Fig. 7. Output vs. Temperature

PIN CONNECTIONS TO ELECTRICAL SCHEMATIC

PIN	ELECTRICAL CONNECTION			
	HLMP-2X00	HLMP-2X50	HLMP-2X55	HLMP-2X70/-2X85
1	1 Cathode	1 Cathode	1 Cathode	1 Cathode
2	1 Anode	1 Anode	1 Anode	1 Anode
3	2 Cathode	2 Cathode	2 Cathode	2 Cathode
4	2 Anode	2 Anode	2 Anode	2 Anode
5		3 Cathode	3 Cathode	3 Cathode
6		3 Anode	3 Anode	3 Anode
7		4 Cathode	4 Anode	4 Anode
8		4 Anode	4 Cathode	4 Cathode
9				5 Cathode
10				5 Anode
11				6 Anode
12				6 Cathode
13				7 Cathode
14				7 Anode
15				8 Anode
16				8 Cathode

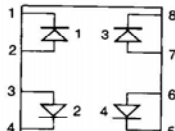
ELECTRICAL SCHEMATIC



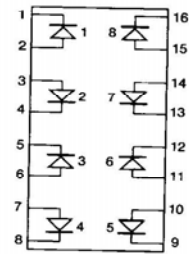
HLMP - 2X00



HLMP - 2X50



HLMP - 2X55



HLMP - 2X70

C2016



LED LIGHT BARS

DISCLAIMER

FAIRCHILD SEMICONDUCTOR RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION OR DESIGN. FAIRCHILD DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE APPLICATION OR USE OF ANY PRODUCT OR CIRCUIT DESCRIBED HEREIN; NEITHER DOES IT CONVEY ANY LICENSE UNDER ITS PATENT RIGHTS, NOR THE RIGHTS OF OTHERS.

LIFE SUPPORT POLICY

FAIRCHILD'S PRODUCTS ARE NOT AUTHORIZED FOR USE AS CRITICAL COMPONENTS IN LIFE SUPPORT DEVICES OR SYSTEMS WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE PRESIDENT OF FAIRCHILD SEMICONDUCTOR CORPORATION. As used herein:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, support or sustain life, and (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury of the user.
2. A critical component in any component of a life support device or system whose failure to perform can be or (b) reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.