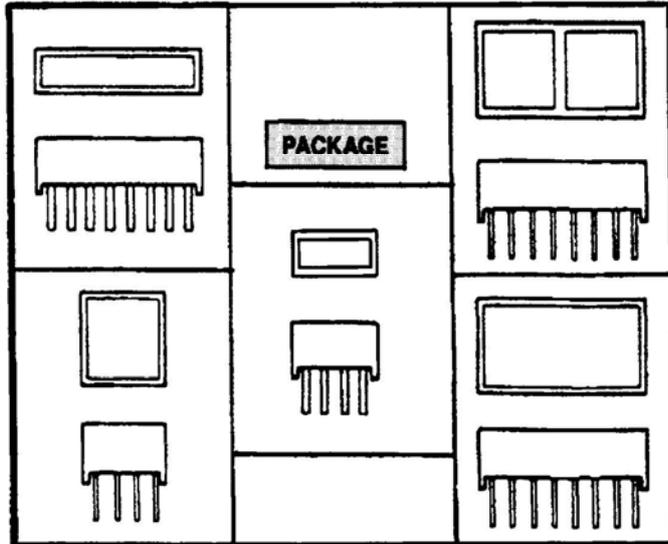


**HIGH EFFICIENCY RED HLMP-2300/2600 SERIES**  
**YELLOW HLMP-2400/2700 SERIES**  
**HIGH EFFICIENCY GREEN HLMP-2500/2800 SERIES**


**DESCRIPTION**

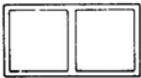
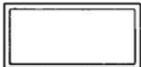
These LED Light Bar series are bright, large emitting area, rectangular devices that are designed for backlighting legend/message annunciators.

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 HLMP-2400 HLMP-2500	High Efficiency Red Yellow High Efficiency Green	2 LED Single-in-line 0.35 in. x 0.15 in. Area		A	A
HLMP-2350 HLMP-2450 HLMP-2550	High Efficiency Red Yellow High Efficiency Green	4 LED Single-in-line 0.75 in. x 0.15 in. Area		B	B
HLMP-2655 HLMP-2755 HLMP-2855	High Efficiency Red Yellow High Efficiency Green	4 LED Dual-in-line 0.35 in. x 0.35 in. Area		C	C
HLMP-2670 HLMP-2770 HLMP-2870	High Efficiency Red Yellow High Efficiency Green	Dual 0.35 in. x 0.35 in. Area Dual-in-line package		D	D
HLMP-2685 HLMP-2785 HLMP-2885	High Efficiency Red Yellow High Efficiency Green	8 LED 0.35 in. x 0.75 in. Area Dual-in-line package		E	D

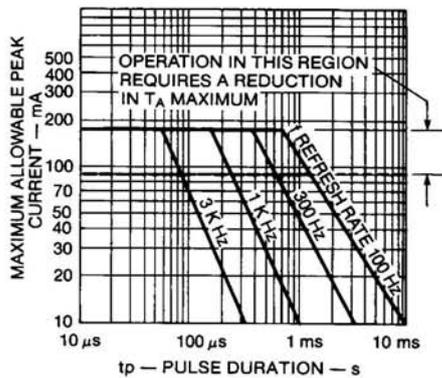
<b>ELECTRO-OPTICAL CHARACTERISTICS (T<sub>A</sub>=25°C)</b>									
<b>HIGH EFFICIENCY RED</b>									
PARAMETER	SYMBOL	HLMP					UNIT	TEST CONDITIONS	
		-2300	-2350	-2655	-2670	-2685			
Luminous Intensity	min.		6.0	13	13	13	22	mcd	I <sub>F</sub> =20 mA
	typ.	I <sub>V</sub>	23	45	43	45	80	mcd	I <sub>F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

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

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

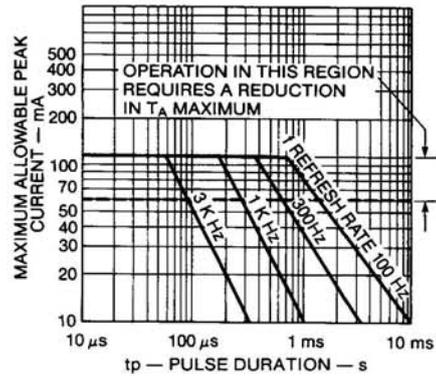
### TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES

(25°C Free Air Temperature Unless Otherwise Specified)



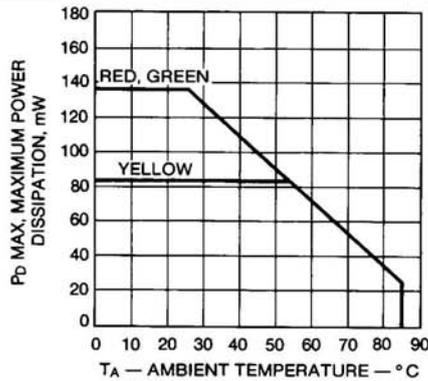
C2013

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



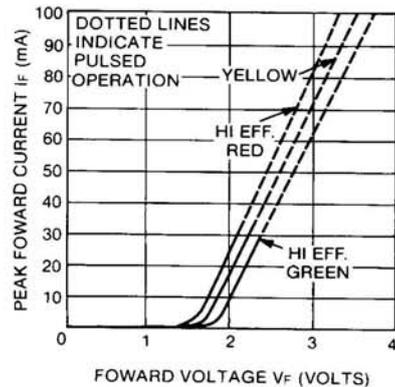
C2014

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



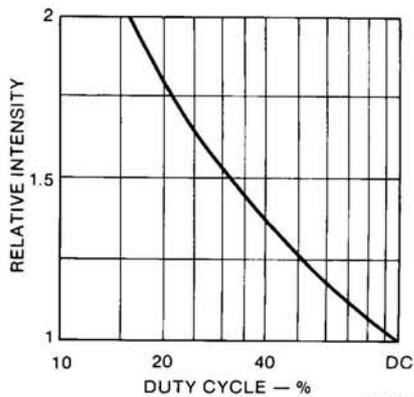
C2025

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



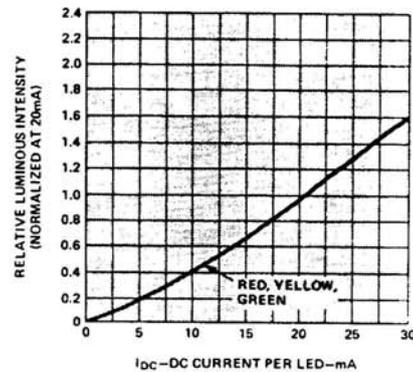
C1833A

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)

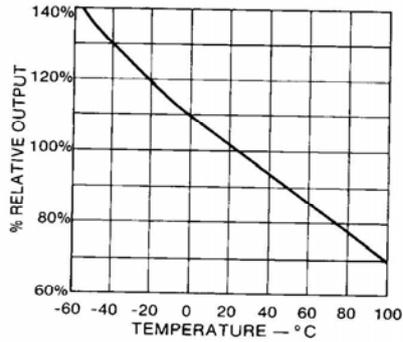
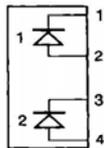


Fig. 7. Output vs. Temperature C654B

**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 Cathode
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

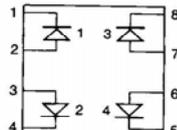
**ELECTRICAL SCHEMATIC**



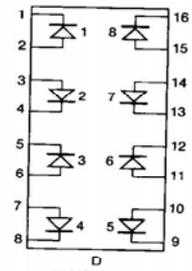
HLMP - 2X00



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.



**Стандарт  
Электрон  
Связь**

Мы молодая и активно развивающаяся компания в области поставок электронных компонентов. Мы поставляем электронные компоненты отечественного и импортного производства напрямую от производителей и с крупнейших складов мира.

Благодаря сотрудничеству с мировыми поставщиками мы осуществляем комплексные и плановые поставки широчайшего спектра электронных компонентов.

Собственная эффективная логистика и склад в обеспечивает надежную поставку продукции в точно указанные сроки по всей России.

Мы осуществляем техническую поддержку нашим клиентам и предпродажную проверку качества продукции. На все поставляемые продукты мы предоставляем гарантию .

Осуществляем поставки продукции под контролем ВП МО РФ на предприятия военно-промышленного комплекса России , а также работаем в рамках 275 ФЗ с открытием отдельных счетов в уполномоченном банке. Система менеджмента качества компании соответствует требованиям ГОСТ ISO 9001.

Минимальные сроки поставки, гибкие цены, неограниченный ассортимент и индивидуальный подход к клиентам являются основой для выстраивания долгосрочного и эффективного сотрудничества с предприятиями радиоэлектронной промышленности, предприятиями ВПК и научно-исследовательскими институтами России.

С нами вы становитесь еще успешнее!

**Наши контакты:**

**Телефон:** +7 812 627 14 35

**Электронная почта:** [sales@st-electron.ru](mailto:sales@st-electron.ru)

**Адрес:** 198099, Санкт-Петербург,  
Промышленная ул, дом № 19, литера Н,  
помещение 100-Н Офис 331