LEDTRONICS, INC.®

23105 Kashiwa Court, Torrance, CA 90505
Phone: (800) 579-4875 or (310) 534-1505 Fax: (310) 534-1424
E-mail: webmaster@ledtronics.com
Website: http://www.ledtronics.com

SML070CR4-TR

Hi-Eff Red

3.3×3.1×2.4mm Right-Angled SMD

100° viewing angle

DWG BY: GP 12-22-11
CHK BY: PL 12-22-11
REVISION LTR: - 12-22-11

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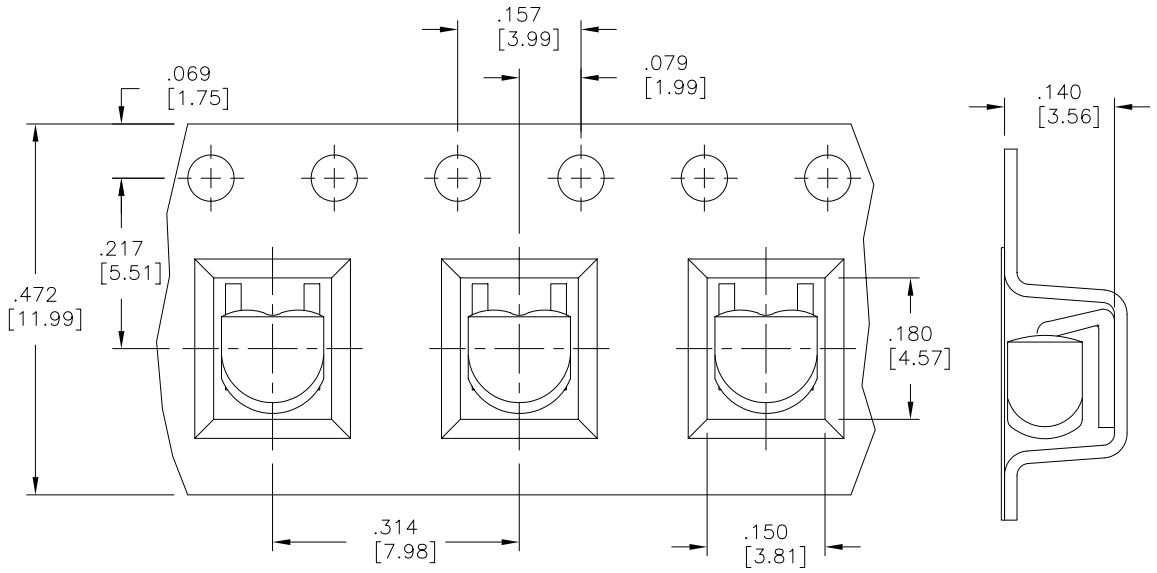
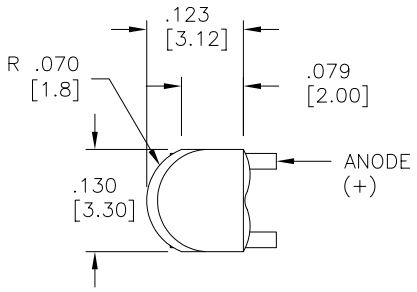


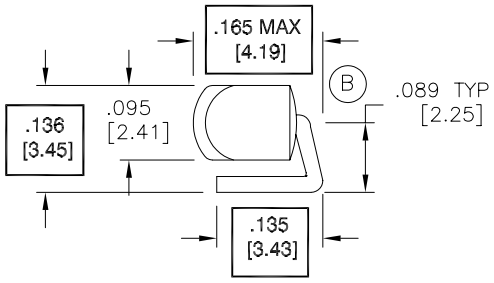
Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25mm (0.01") unless otherwise specified.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.



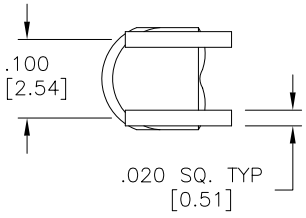
Features:

1. Chip material: GaAsP/GaP
2. Emitted color : Hi-Eff Red
3. Lens Appearance : Red Transparent

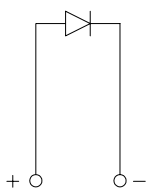


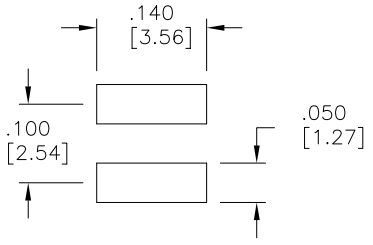
Tape & Reel Specifications:

1. Reed Size: 13" Dia.
2. Parts per Reel: 2500



CIRCUIT DIAGRAM





RECOMMENDED PAD LAYOUT

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● Absolute maximum ratings(Ta=25℃)

Parameter	Symbol	Rating	Unit
Power Dissipation	Pd	80	mW
Forward Current	I_F	30	mA
Peak Forward Current*[1]	I_{FP}	150	mA
Reverse Voltage	V_R	5	V
Operating Temperature	Topr	-40℃~85℃	
Storage Temperature	Tstg	-40℃~100℃	
Soldering Temperature	Tsol	260℃max (for 5 seconds)	
Hand Soldering Temperature	Tsol	350℃max(for 3 seconds)	

*[1]Condition for I_{FP} is pulse of 1/10 duty and 0.1msec width.

● Electrical and optical characteristics(Ta=25℃)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	I_F=2mA	-	1.7	2.4	V
Luminous Intensity	Iv	I_F=2mA	-	1.2	-	mcd

● Electrical and optical characteristics(Ta=25℃)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	I_F=20mA	-	2.2	2.6	V
Luminous Intensity	Iv	I_F=20mA	-	17	-	mcd
Reverse Current	I_R	V_R=5V	-	-	100	μA
Peak Wave Length	λp	I_F=20mA	638	646	649	nm
Dominant Wave Length	λd	I_F=20mA	624	631	633	nm
Spectral Line Half-width	Δλ	I_F=20mA	-	42	-	nm
Viewing Angle	$2\theta_{1/2}$	I_F=20mA	-	100	-	deg
Radiant Intensity		I_F=20mA	-	-	-	mW/sr
Chromaticity Coordinates	X	I_F=20mA	-	0.71	-	
	Y		-	0.29	-	

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● Typical electro-optical characteristics curves

Fig.1 Relative intensity vs. Wavelength

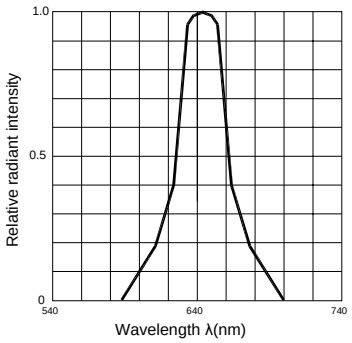


Fig.2 Forward current derating curve vs. Ambient temperature

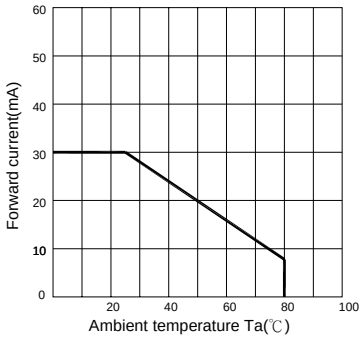


Fig.3 Forward current vs. Forward voltage

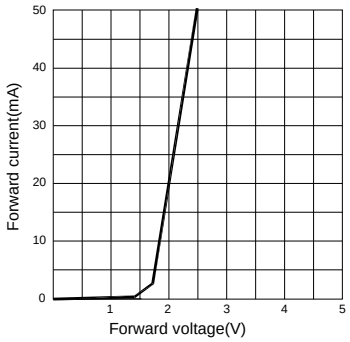


Fig.4 Relative luminous intensity vs. Ambient temperature

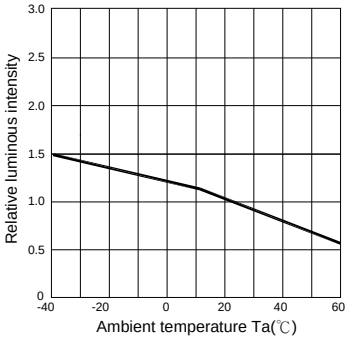


Fig.5 Relative luminous intensity vs. Forward current

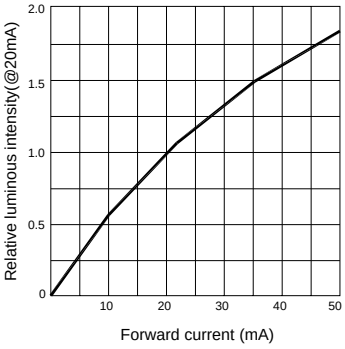
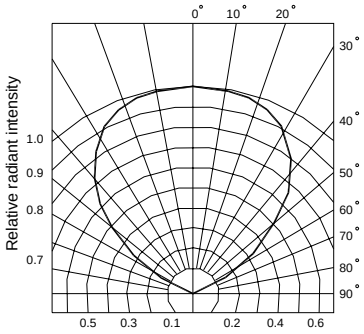


Fig.6 Radiation diagram



● DIP soldering (Wave Soldering)

Preheating : 120℃,within 120~180 sec.
Operation heating : 255℃±5℃ within 5 sec.260℃ (Max)
Gradual Cooling (Avoid quenching).