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

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

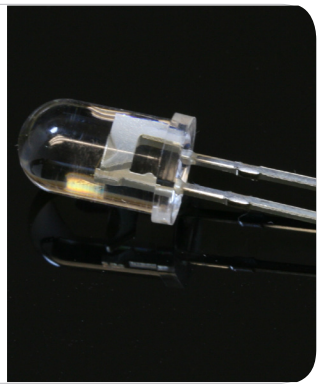
Marktech Optoelectronics

Infrared LED

Product No: **MT51020-IR**

Peak Emission Wavelength: 1020nm

The MT51020-IR is an infrared T 1 3/4, 5mm water clear LED designed for applications requiring high power and high speed packaged with the lens optimized to produce a narrow viewing angle.



FEATURES

> High Power Output
> High Speed
> Straight Leads

APPLICATIONS

> Optical Communications
> Safety Equipment / Automation
> Coin / Currency Validation

Absolute Maximum Ratings (Ta=25°C)

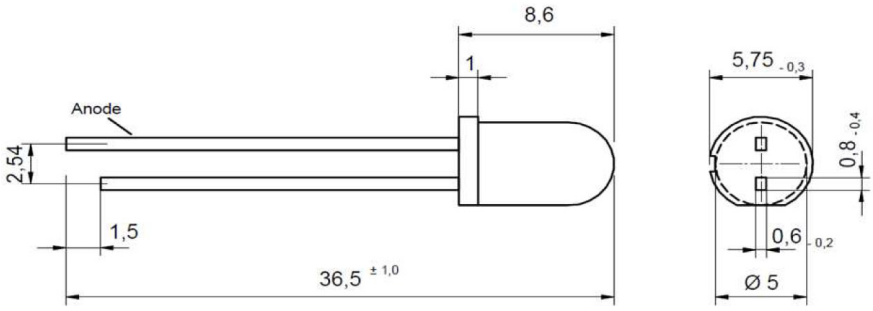
ITEMS	SYMBOL	RATINGS	UNIT
Forward Current	IF	100	mA
Peak Forward Current*1	IFP	200	mA
Power Dissipation	PD	135	mW
Operating Temperature Range	Topr	-20 ~ +80	°C
Storage Temperature Range	Tstg	-55 ~ +100	°C
Lead Soldering Temperature*2	Tls	260	°C

*1: Test Conditions: $t_p \leq 50\mu s$, $t_p/T=1/2$. *2: Time 5 Sec max, Position: Up to 3mm from case.

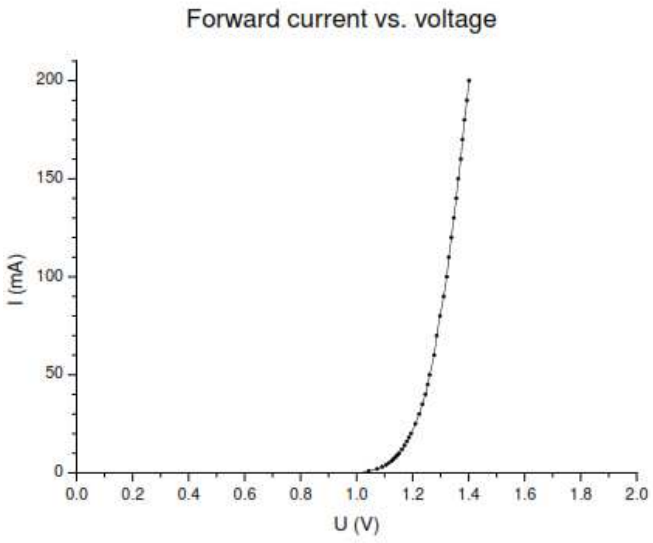
Electrical & Optical Characteristics (Ta = 25°C)

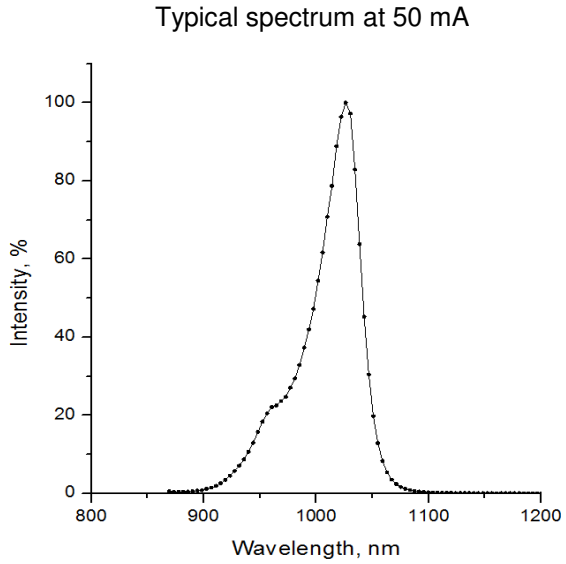
ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Forward Voltage	VF	IF=20mA	--	1.15	1.40	V
Forward Voltage	VF	IF=100mA	--	1.25	1.35	V
Reverse Voltage	VR	IR=10μA	5	--	--	V
Radiant Power	Φe	IF=20mA	--	4	--	mW
Radiant Power	Φe	IF=100mA	--	20	--	mW
Radiant Intensity	Ie	IF=20mA	--	13	--	mW/sr
Radiant Intensity	Ie	IF=100mA	--	65	--	mW/sr
Peak Emission Wavelength	λp	IF=100mA	1000	1020	1040	nm
Spectral Bandwidth at 50%	$\Delta\lambda_{0.5}$	IF=100mA	--	50	--	nm
Viewing Angle	Θ	IF=100mA	--	20	--	deg.
Switching Time	T_R, T_F	IF=100mA	--	20; 40	--	ns

2017-06-23



Unit: mm

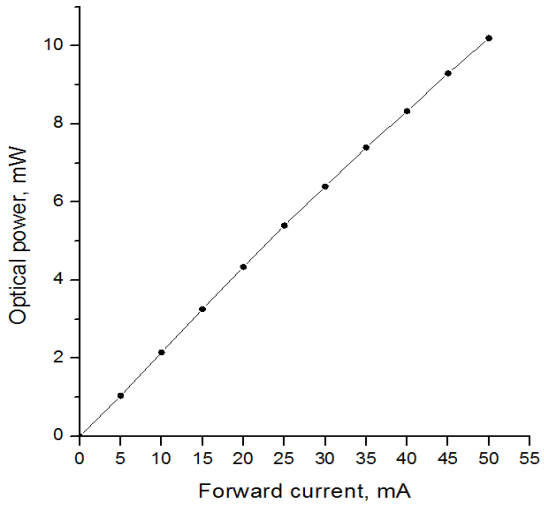




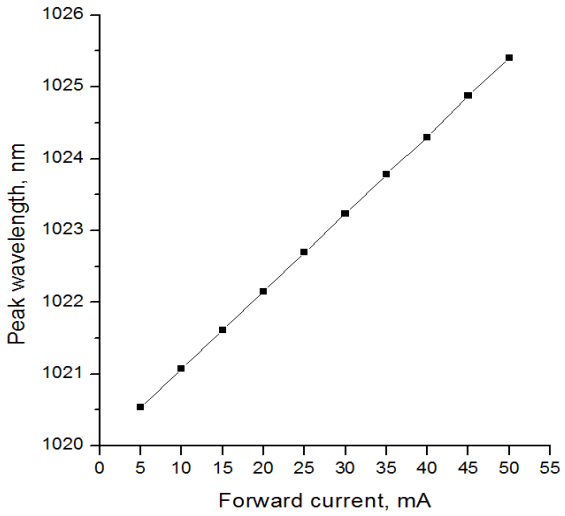
The information contained herein is subject to change without notice.

2017-06-23

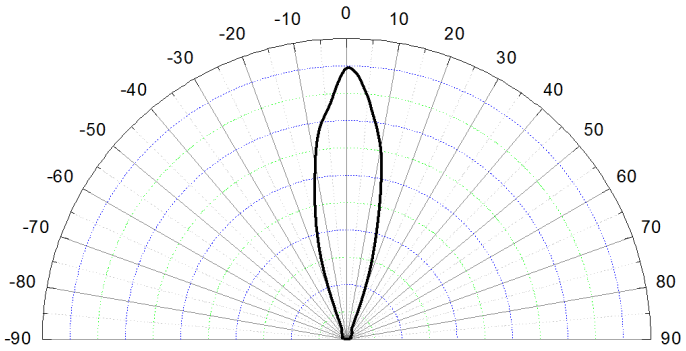
Optical power vs. forward current



Peak wavelength vs. forward current



Typical radiation pattern



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