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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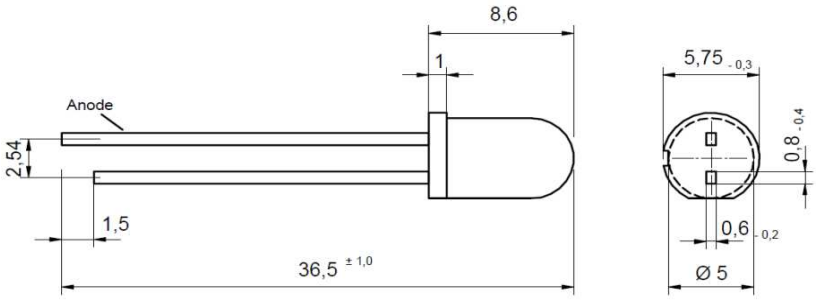
Marktech Optoelectronics

Infrared Emitter

Product No: **MTE0013-525-IR**

Peak Emission Wavelength: 1300nm



Description

- Standard 5mm plastic lens package housed without standoff leads
- Type: MQW
- High power
- High speed infrared

Application

- Optical communication
- Safety equipment
- Automation

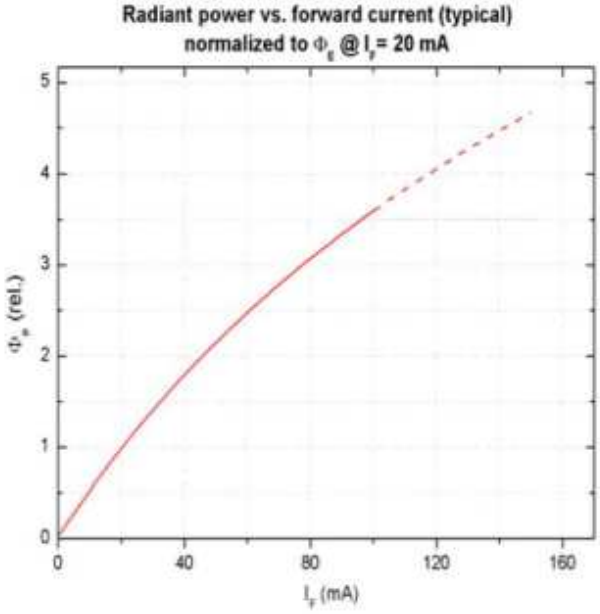
Absolute Maximum Ratings (Ta=25°C)

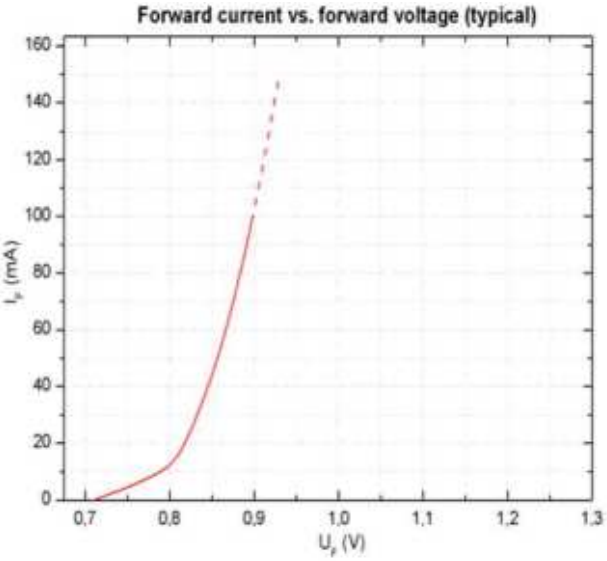
ITEMS	TEST CONDITIONS	SYMBOL	RATINGS	UNIT
Forward DC Current		If	100	mA
Peak Forward Current	(tp ≤ 50us, tp/T=1/2)	Ifp	200	mA
Power Dissipation		Pd	150	mW
Operating Temperature Range		Top	-20 to +80	°C
Storage Temperature Range		Tstg	-55 to +100	°C
Lead Soldering Temperature	t<5s, 3mm from case	Tslg	260	°C

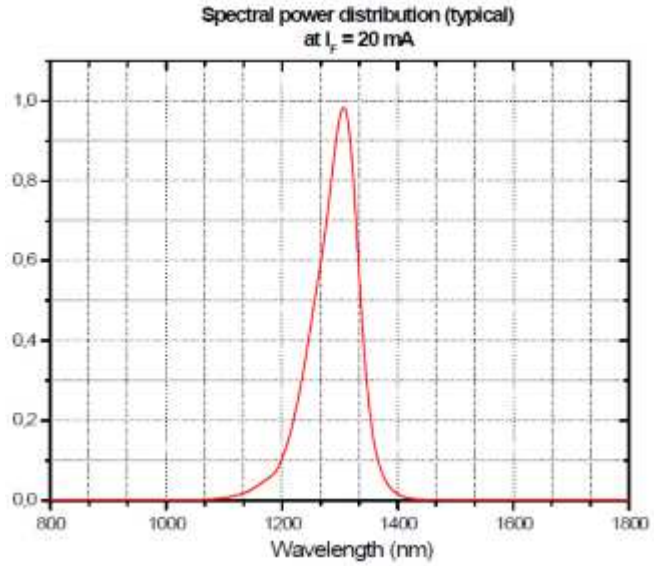
Electrical & Optical Characteristics (Ta = 25°C)

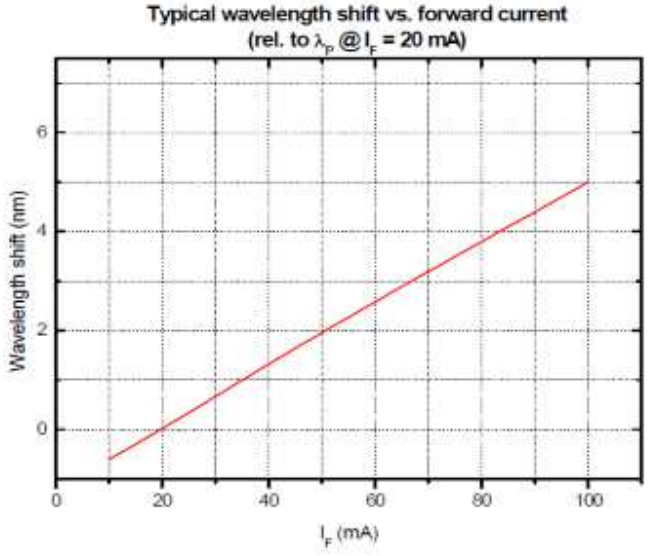
ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Forward Voltage	Vf	If=20mA	--	0.85	1	V
Forward Voltage	Vf	If=100mA	--	0.95	--	V
Reverse Voltage	Vr	Ir=10uA	5	--	--	V
Radiant Power	Φe	If=20mA	1.6	2.2	--	mW
Radiant Power	Φe	If=100mA	--	8.5	--	mW
Radiant Intensity	Ie	If=20mA	--	10	--	mW/sr
Radiant Intensity	Ie	If=100mA	--	38	--	mW/sr
Peak Wavelength	λp	If=20mA	1250	1300	1350	nm
Spectral Bandwidth at 50%	Δλ0.5	If=20mA	--	70	--	nm
Viewing Angle	φ	If=20mA	--	20	--	deg
Switching Time	tr, tf	If=20mA	--	10		ns

2018-01-08

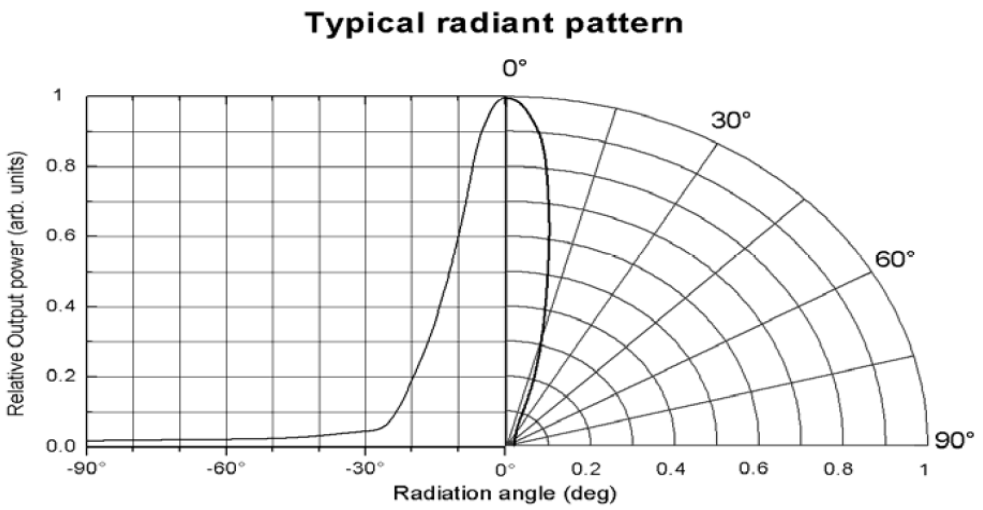

Radiant power vs. forward current (typical)
normalized to Φe @ IF = 20 mA
Φe (rel.)
IF (mA)
0
1
2
3
4
5
0
40
80
120
160


Forward current vs. forward voltage (typical)
IF (mA)
UF (V)
0
20
40
60
80
100
120
140
160
0,7
0,8
0,9
1,0
1,1
1,2
1,3


Spectral power distribution (typical)
at IF = 20 mA
Wavelength (nm)
0,0
0,2
0,4
0,6
0,8
1,0
800
1000
1200
1400
1600
1800


Typical wavelength shift vs. forward current
(rel. to λP @ IF = 20 mA)
Wavelength shift (nm)
IF (mA)
0
2
4
6
0
20
40
60
80
100

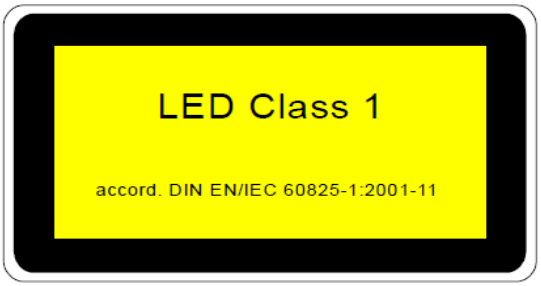
2018-01-08



Remarks concerning optical radiation safety*

Up to Maximum Forward current, at continuous operation, this LED may be classified as LED product Class 1 , according to standard IEC 60825-1:A2. Class 1 products are safe to eyes and skin under reasonably predictable conditions. This implicates a direct observation of the light beam by means of optical instruments.

*Note: Safety classification of an optical component mainly depends on the intended application and the way the component is being used. Furthermore, all statements made to classification are based on calculations and are only valid for this LED "as it is", and at continuous operation. Using pulsed current or altering the light beam with additional optics may lead to different safety classifications. Therefore these remarks should be taken as recommendation and guideline only.



2018-01-08