Optoelectronic Devices

Order code	Manufacturer code	Description
72-8966	n/a	INFRA-RED EMITTING DIODE

Sales: 01206 751166 **Technical: 01206 835555** **Fax: 01206 7551188**
Sales@rapidelec.co.uk **Tech@rapidelec.co.uk** **www.rapidelectronics.co.uk**

Kingbright®

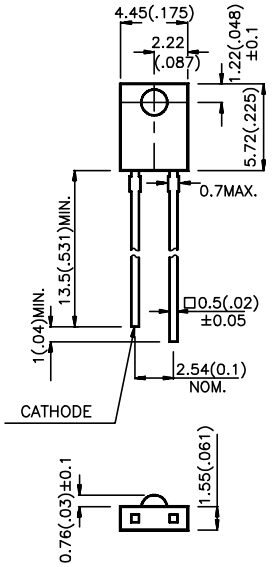
INFRA-RED EMITTING DIODES

KM-4457F3C

Features

- MECHANICALLY AND SPECTRALLY MATCHED TO THE L-610MP4BT/BD PHOTOTRANSISTOR.
- BOTH WATER CLEAR LENS AND BLUE TRANSPARENT LENS AVAILABLE
- HIGH POWER OUTPUT.

Package Dimensions



Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25(0.01") unless otherwise noted.
3. Lead spacing is measured where the lead emerge package.
4. Specifications are subjected to change without notice.

Description

F3 Made with Gallium Arsenide Infrared Emitting diodes.

Selection Guide

Part No.	Lens Type	Iv (mW/sr) @20mA		Viewing Angle
		Min.	Max.	2θ1/2
KM-4457F3C	Water Clear	1.25	5	150°

Note:
1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

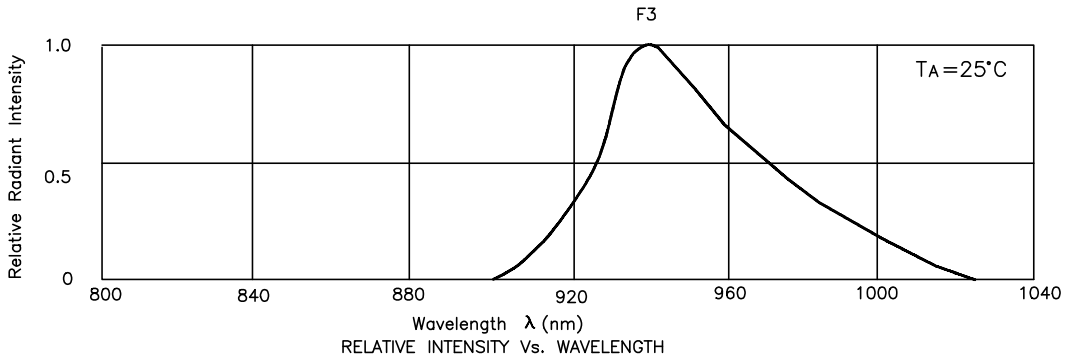
Electrical / Optical Characteristics at T_A=25°C

Item	P/N	Symbol	Typ.	Max.	Unit	Condition
Forward Voltage	KM-4457F3C	VF	1.2	1.5	V	IF=20mA
Reverse Current	KM-4457F3C	IR	-	10	uA	VR=5V
Junction Capacitance	KM-4457F3C	Co	90	-	pF	V=0 f=1MHz
Peak Spectral Wavelength	KM-4457F3C	IR	940	-	nm	IF=20mA
Spectral Bandwidth	KM-4457F3C	$\Delta\lambda$	50	-	nm	IF=20mA

Absolute Maximum Ratings at T_A=25°C

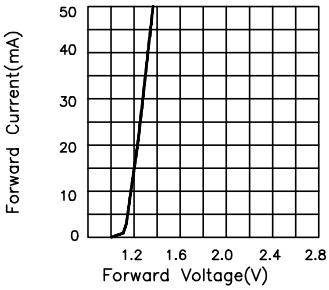
Item	Symbol	Maximum Rating	Units
Power Dissipation	Pd	100	mW
Forward Current	IF	50	mA
Peak Forward Current	Ip	1.2	A
Reverse Voltage	VR	5	V
Operating Temperature	Topr	-45~ +80	°C
Storage Temperature	Tstg	-45~ +80	°C

Note:
1.Ip Condiction : 1/10 Duty Cycle, 0.1ms Pluse Width.

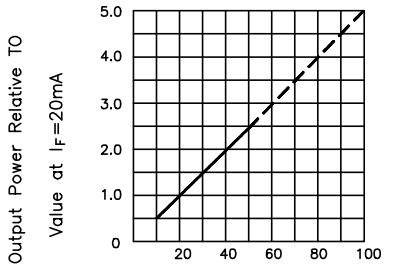


RELATIVE INTENSITY Vs. WAVELENGTH

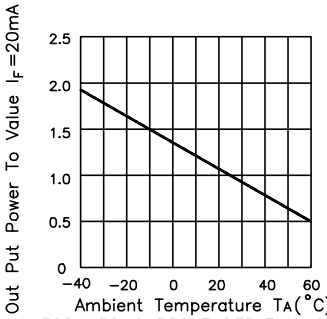
KM-4457F3C



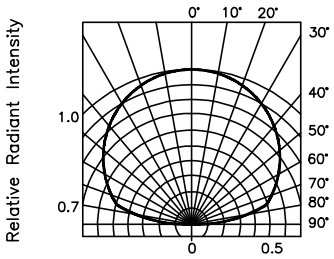
FORWARD CURRENT Vs. FORWARD VOLTAGE



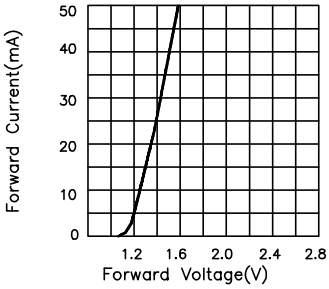
Relative Radiant Intensity Vs. Forward Current



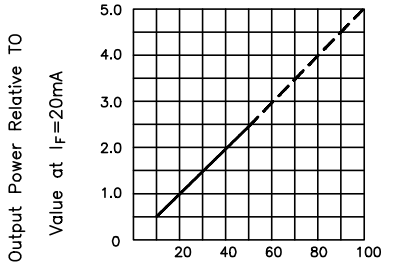
FORWARD CURRENT DERATING CURVE



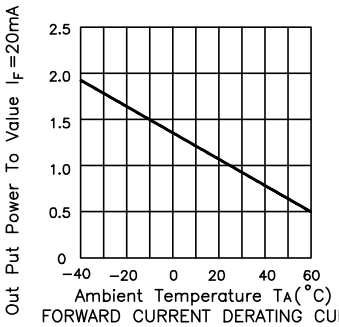
RADIATION DIAGRAM



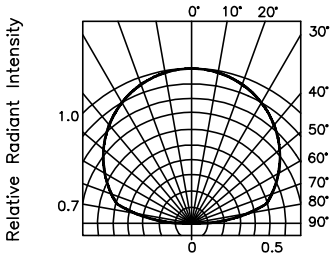
FORWARD CURRENT Vs. FORWARD VOLTAGE



Relative Radiant Intensity Vs. Forward Current



FORWARD CURRENT DERATING CURVE



RADIATION DIAGRAM