

Part Number: KM2520F3C03

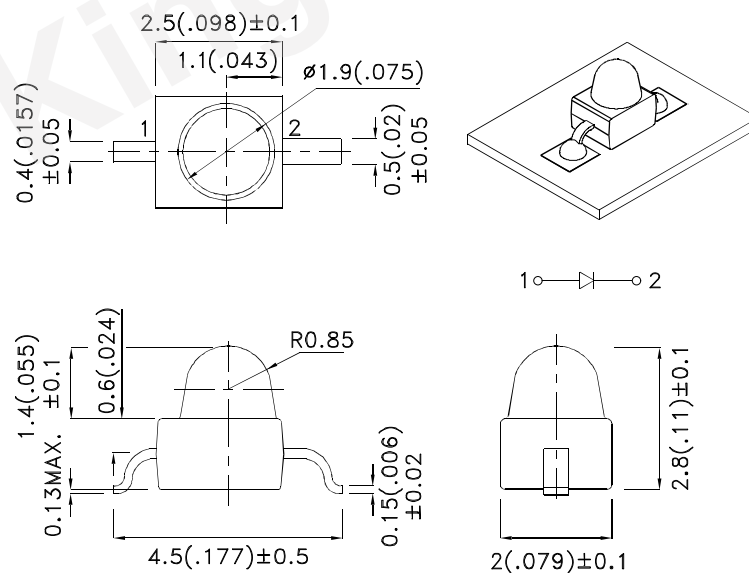
Features

- Subminiature package.
- Mechanically and spectrally matched to the phototransistor.
- Gull wing lead.
- Long life - solid state reliability.
- Low package profile.
- Package : 1000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

Description

F3 Made with Gallium Arsenide Infrared Emitting diodes.

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(0.01)$ unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
5. The device has a single mounting surface. The device must be mounted according to the specifications.



Selection Guide

Part No.	Emitting Color (Material)	Lens Type	Po (mW/sr) [2] @ 20mA		Po (mW/sr) [2] @ 50mA		Viewing Angle [1]
			Min.	Typ.	Min.	Typ.	2θ1/2
KM2520F3C03	Infrared (GaAs)	Water Clear	5	10	10	20	20°
			*3	*8	*8	*16	

Notes:

1. $\theta_{1/2}$ is the angle from optical centerline where the luminous intensity is 1 / 2 of the optical peak value.
2. Radiant Intensity/ luminous flux: + / -15%.

* Radiant intensity value is traceable to the CIE127-2007 compliant national standards.

Electrical / Optical Characteristics at TA=25°C

Parameter	Emitting Color	Symbol	Typ.	Max.	Units	Test Conditions
Forward Voltage [1]	F3	V _F	1.2	1.6	V	I _F =20mA
Reverse Current	F3	I _R		10	uA	V _R = 5V
Capacitance	F3	C	90		pF	V _F =0V;f=1MHz
Peak Spectral Wavelength	F3	λ _P	940		nm	I _F =20mA
Spectral Bandwidth	F3	Δλ _{1/2}	50		nm	I _F =20mA

Notes:

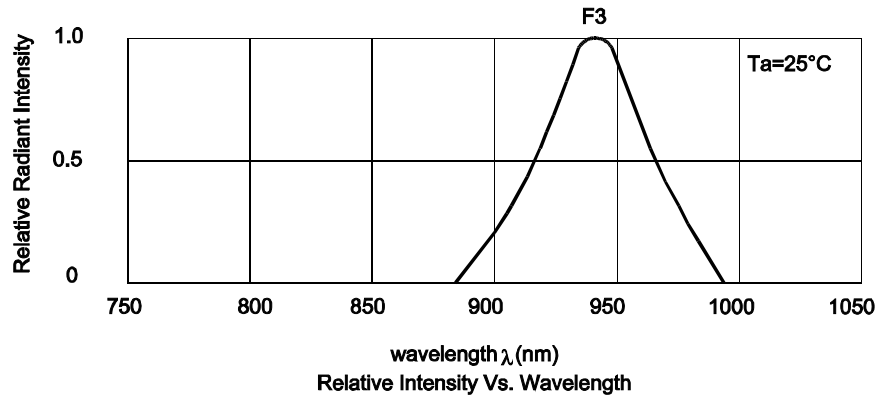
1. Forward Voltage: + / -0.1V.
2. Wavelength value is traceable to the CIE127-2007 compliant national standards.
3. Excess driving current and/or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

Absolute Maximum Ratings at TA=25°C

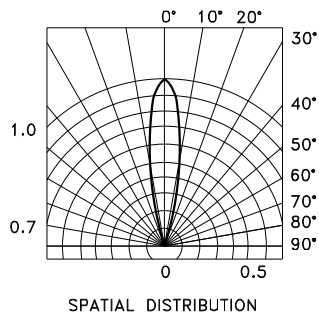
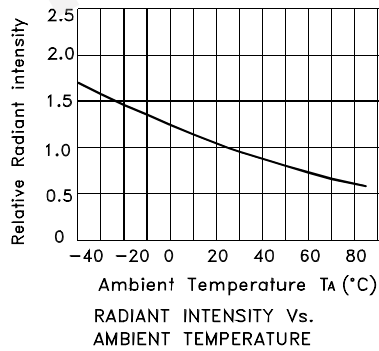
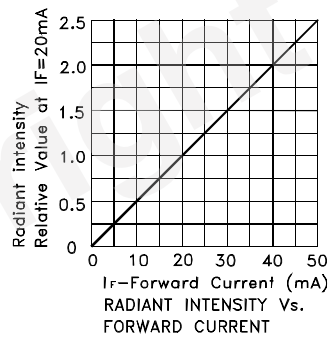
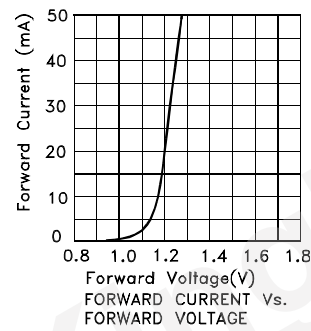
Parameter	Symbol	Values	Units
Power dissipation	P _D	80	mW
DC Forward Current	I _F	50	mA
Peak Forward Current [1]	i _{FS}	1.2	A
Reverse Voltage	V _R	5	V
Operating Temperature	T _A	-40 To +85	°C
Storage Temperature	T _{STG}	-40 To +85	°C

Note:

1. 1 / 100 Duty Cycle, 10μs Pulse Width.



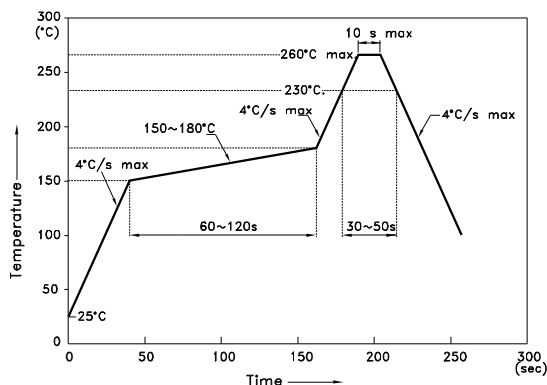
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Reflow soldering is recommended and the soldering profile is shown below.
Other soldering methods are not recommended as they might cause damage to the product.

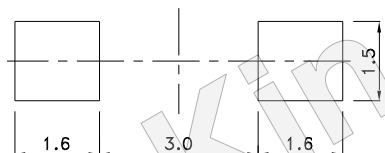
Reflow Soldering Profile For Lead-free SMT Process.



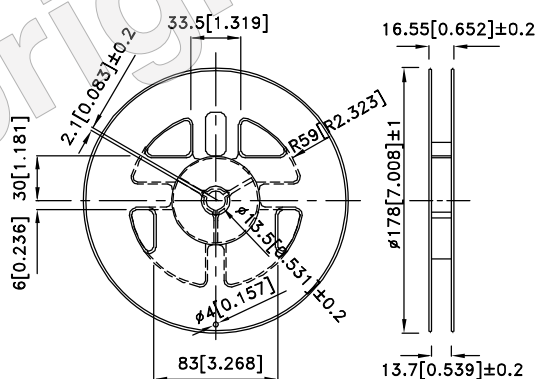
NOTES:

1. We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

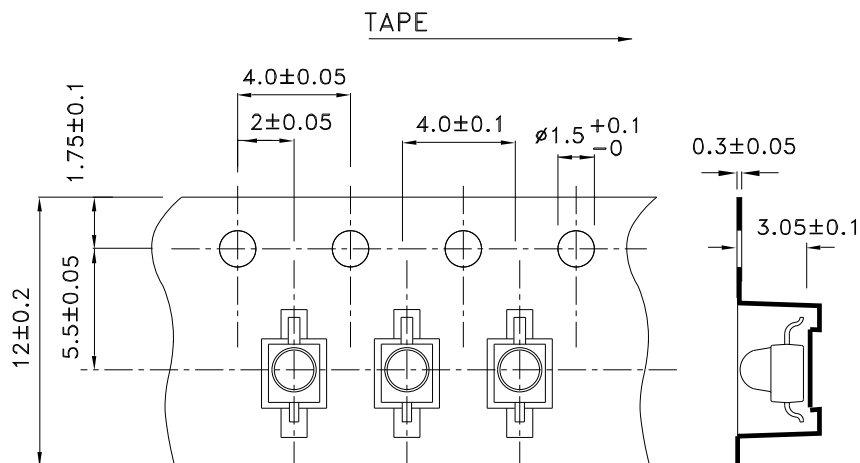
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



Reel Dimension

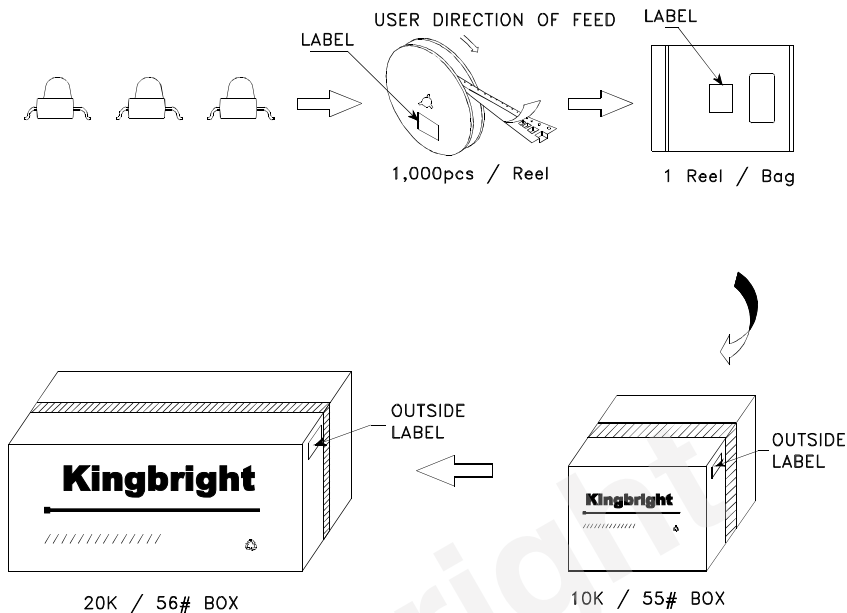



Tape Specifications (Units : mm)



PACKING & LABEL SPECIFICATIONS

KM2520F3C03



Kingbright		
P/NO: KM2520xxx		
QTY: 1000 pcs	Q.C.	Q C xx xx xxxx PASSED
S/N: XXXX		
CODE: XXX		
LOT NO:		
		
RoHS Compliant		

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