Features

⌘ 3.0mmx1.0mm right angle SMT LED, 2.0mm thickness.

⌘Low power consumption.

⌘Wide viewing angle.

⌘Ideal for back light and indicator.

⌘Various colors and lens types available.

⌘Package : 2000pcs / reel.

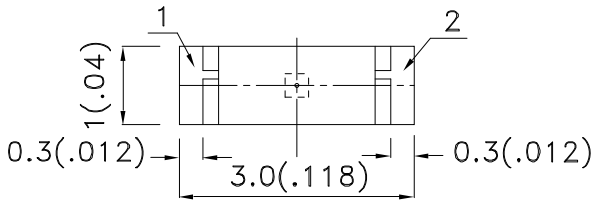
⌘Moisture sensitivity level : level 3.

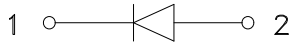
⌘Tinned pads for improved solderability.

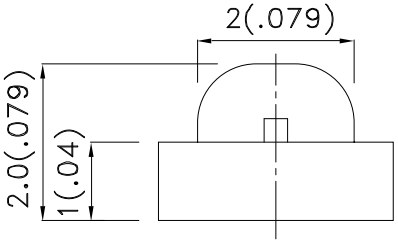
⌘RoHS compliant.

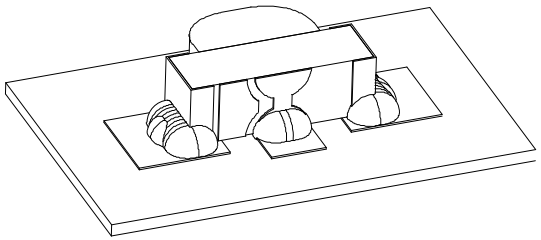
Description

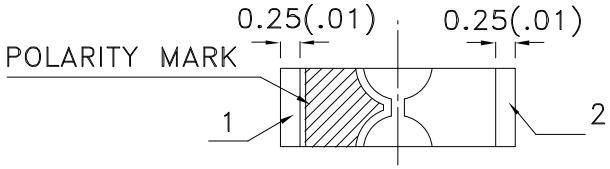
The Hyper Red source color devices are made with Al-GaInP on GaAs substrate Light Emitting Diode.











Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is 0.15(0.006") unless otherwise noted.
3. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
4.The device has a single mounting surface. The device must be mounted according to the specifications.

LED-WRD-10-LF
LEADFREE

RoHS Compliant

MORETHANALL CONNECTORS ASSEMBLIES	PART NO. LED-WRD-10						
	DWG NO. LED-WRD-10		CHECKED BY CY	TOLERANCES ARE X. ± .X ± .XX ± .XXX ± ANG	DESCRIPTION:		
煜倫股份有限公司	FILE NO.		DRAWING BY				
	UNIT / mm	SCALE 1:1	PROJECTION		AREA	REVISIONS	DATE

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
LED-VRDR-20	Hyper Red (AlGaInP)	Water Clear	120	250	120
			*55	*90	

Notes:
1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
2. Luminous intensity/ luminous Flux: +/-15%.
* Luminous intensity value is traceable to the CIE127-2007 compliant national standards.

Electrical / Optical Characteristics at TA=25C

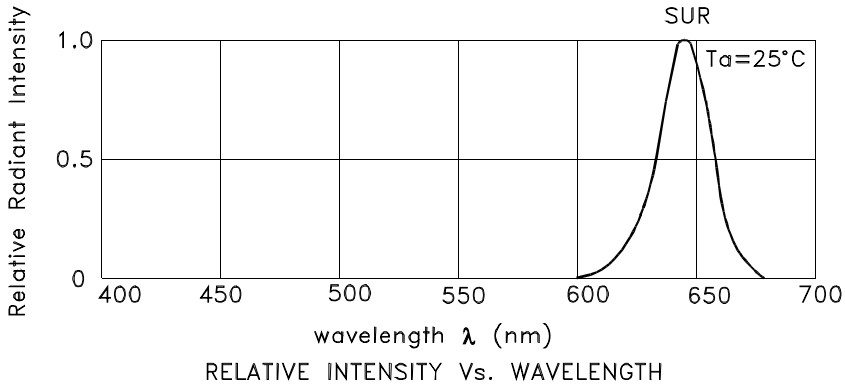
Symbol	Parameter	Device	Typ.		Max.	Units	Test Conditions
λpeak	Peak Wavelength	Hyper Red	650	*645		nm	I_F=20mA
λD [1]	Dominant Wavelength	Hyper Red	630	*630		nm	I_F=20mA
Δλ1/2	Spectral Line Half-width	Hyper Red	27			nm	I_F=20mA
C	Capacitance	Hyper Red	45		pF	V	$_F$=0V;f=1MHz
V_F [2]	Forward Voltage	Hyper Red	1.9		2.5	V	I_F=20mA
I_R	Reverse Current	Hyper Red			10	uA	V_R=5V

Notes:
1.Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.
* Wavelength value is traceable to the CIE127-2007 compliant national standards.

Absolute Maximum Ratings at TA=25C

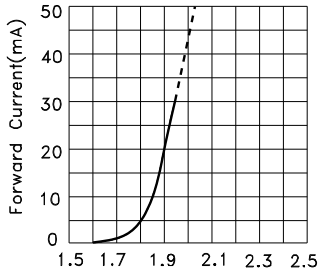
Parameter	Hyper Red	Units
Power dissipation	75	mW
DC Forward Current	30	mA
Peak Forward Current [1]	185	mA
Reverse Voltage	5	V
Operating Temperature	-40蚓 To +85C	
Storage Temperature	-40蚓 To +85C	

Note:
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

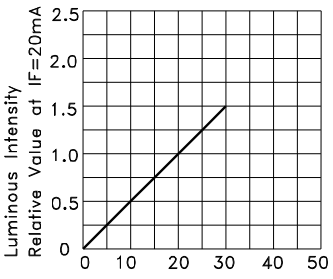


RELATIVE INTENSITY Vs. WAVELENGTH

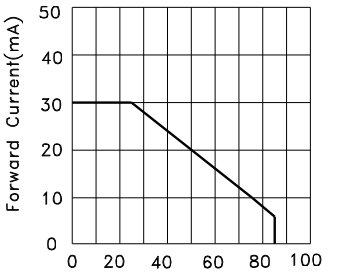
Hyper Red



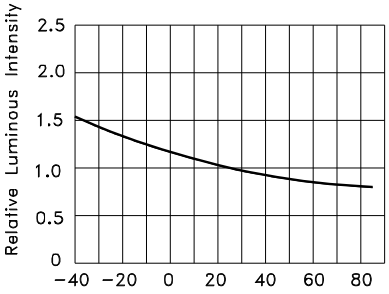
FORWARD CURRENT Vs.
FORWARD VOLTAGE



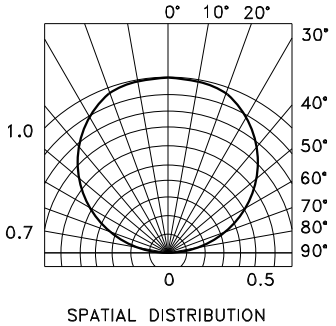
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE



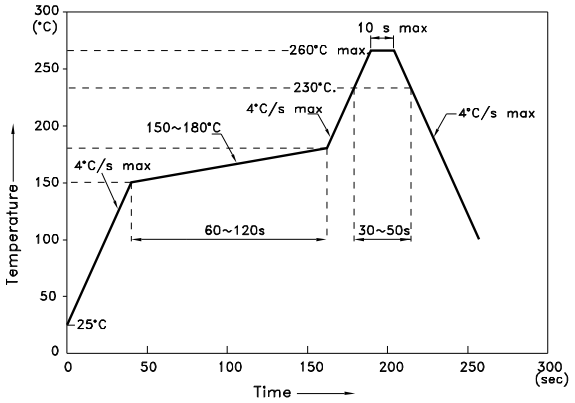
LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

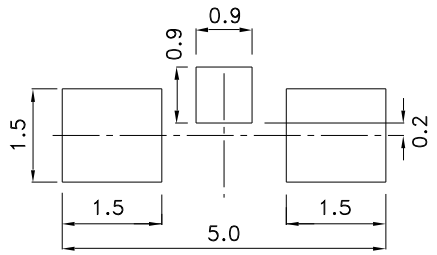
Reflow soldering is recommended and the soldering profile is shown below.
Other soldering methods are not recommended as they might cause damage to the product.

Reflow Soldering Profile For Lead-free SMT Process.

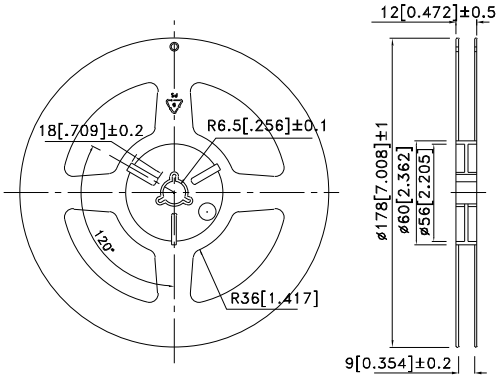


NOTES:
1. We recommend the reflow temperature 245°C(+/-5°C).The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

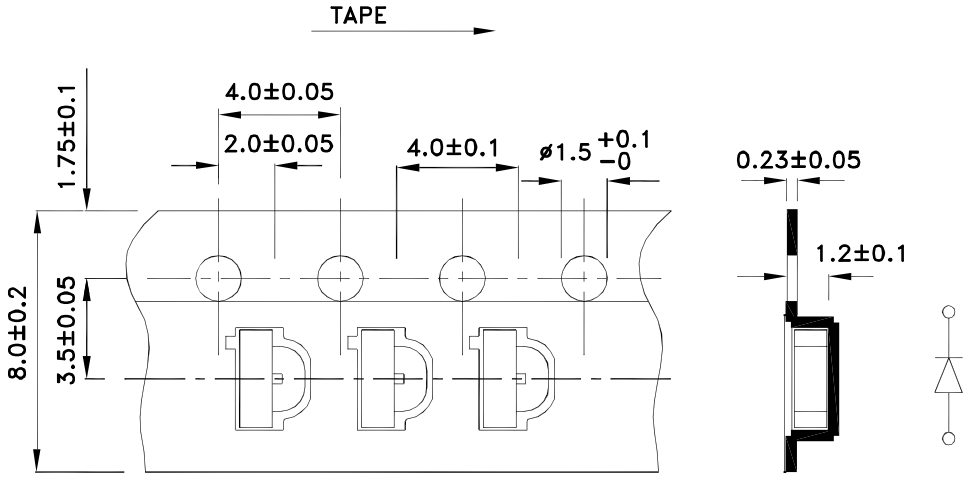
Recommended Soldering Pattern (Units : mm; Tolerance: 0.1)



Reel Dimension



Tape Dimensions (Units : mm)



PACKING & LABEL SPECIFICATIONS