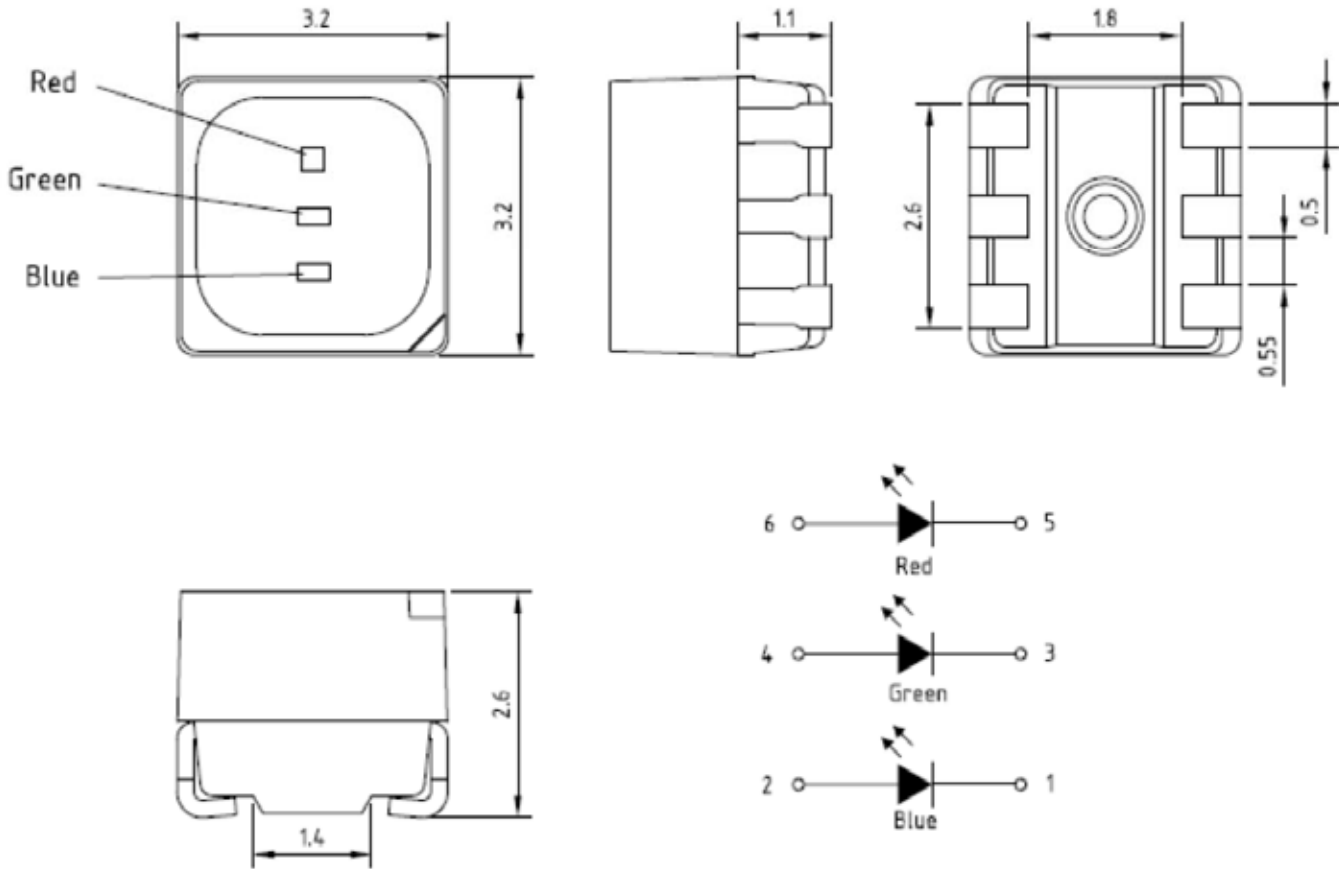


SPECIFICATION
CSPT1313R3GT3B2C
PACKAGE OUTLINES

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25\text{mm}$ (0.01") unless otherwise noted.
3. Specifications are subject to change without notice.

Part Number	Chip Material	Color of Emission	Lens Type	Description
CSPT1313R3GT3B2C	InGaAlP	Red	Water Clear	Common Anode
	InGaN	True Green	Water Clear	Common Anode
	InGaN	Blue	Water Clear	Common Anode



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ABSOLUTE MAXIMUM RATINGS
(TA=25°C)

Parameter	Symbol	Max Rating		Unit
		Blue/ Green	Red	
Forward Current	IF	30	50	mA
Reverse Voltage	VR	5	5	V
Power Dissipation	Pd	108	120	mW
Operating Temperature Range	TOP	-30~+85		°C
Storage Temperature Range	TSTG	-40~+100		°C
Peak Pulsing Current (tp ≤ 10 μs, duty cycle = 0.005)	IFP	100		mA

OPTICAL-ELECTRICAL CHARACTERISTICS
(TA=25°C)

Parameter	Symbol	Test Condition	Color	Value			Unit
				Min	Typ	Max	
Luminous Intensity	Iv	IF = 20mA	Red	630	1240	-	mcd
			Green	1280	2500	-	
			Blue	320	630	-	
Forward Voltage	VF	IF = 20mA	Red	-	2.2	2.4	V
			Green	-	3.2	3.6	
			Blue	-	3.2	3.6	
Viewing Angle at 50% Iv	2θ1/2	IF = 20mA	-	-	115	-	Deg
Dominant Wavelength	λD	IF = 20mA	Red	619	-	624	nm
			Green	520	-	535	
			Blue	465	-	475	

*Tolerance of viewing angle: -10 / +5 deg.

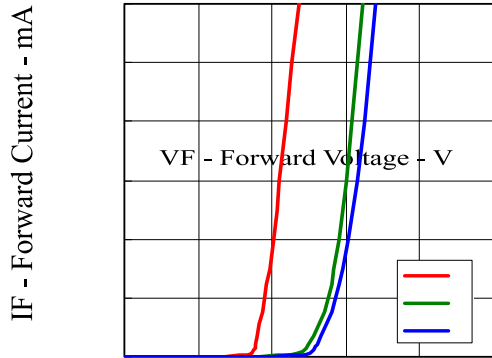
*Tolerance of forward voltage is -/+ 0.05V

*Tolerance of luminous intensity -/+ 1nm

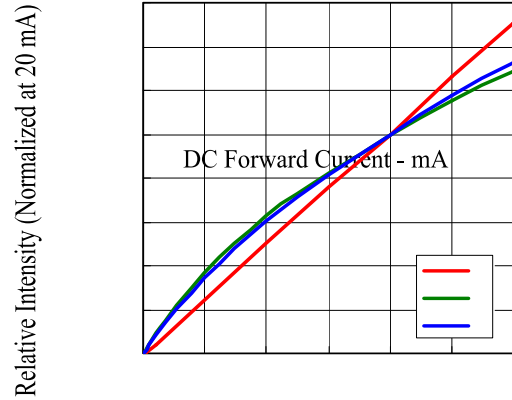

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TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES

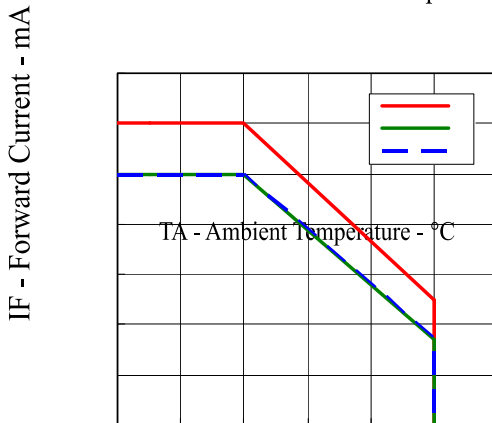
Forward Current vs. Forward Voltage



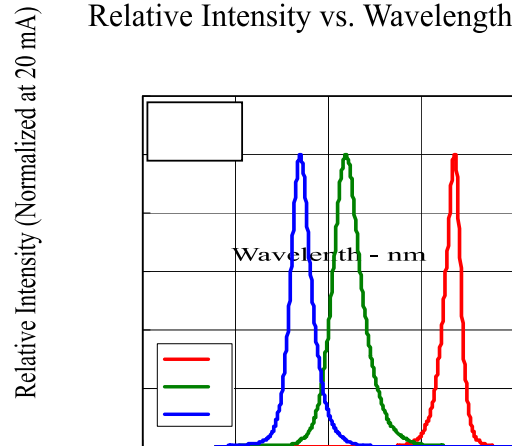
Relative Intensity vs. Forward Current



Forward Current vs. Ambient Temperature

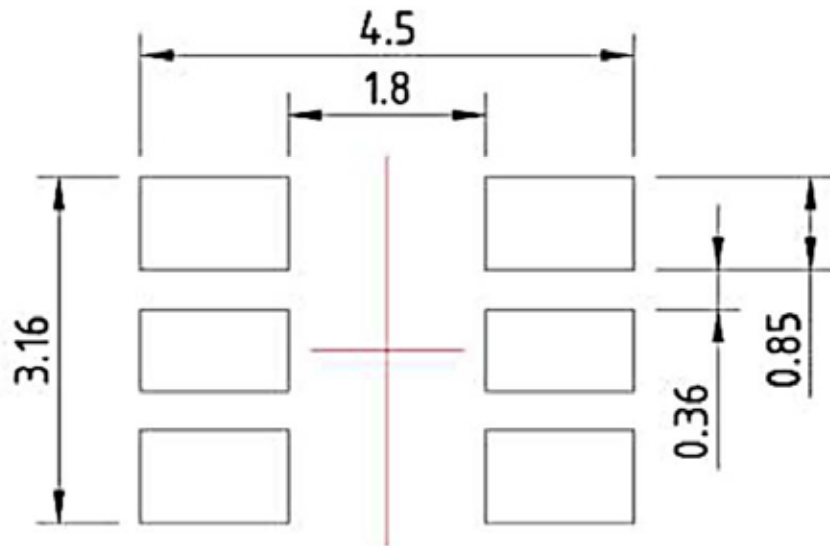
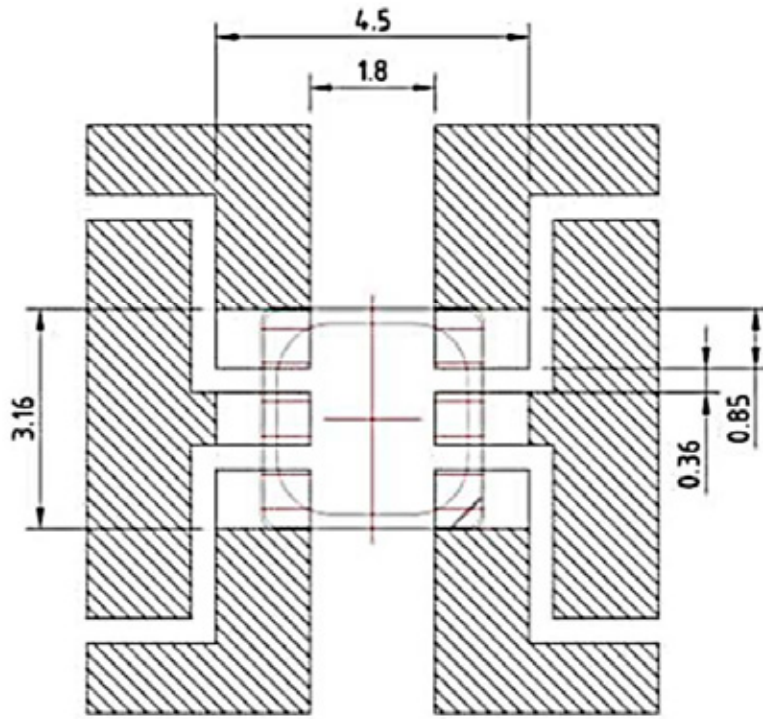


Relative Intensity vs. Wavelength



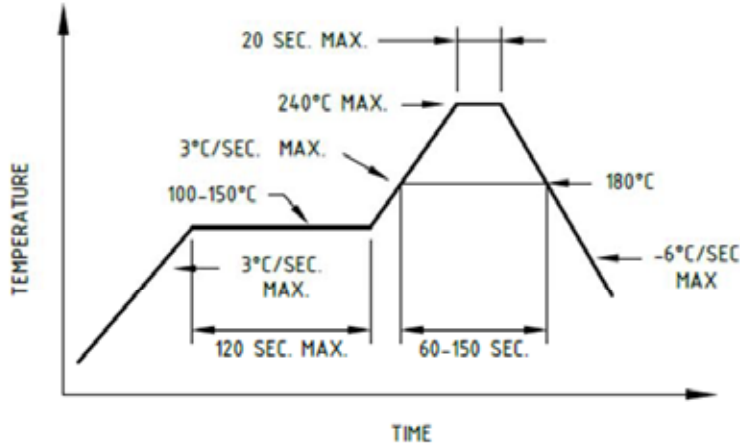
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RECOMMENDED SOLDERING PATTERN

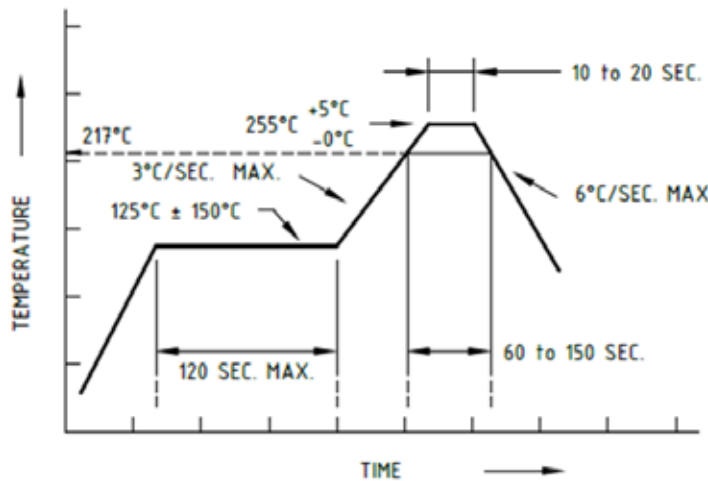


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SOLDERING CONDITIONS



Recommended reflow soldering profile



Recommended Pb-free reflow soldering profile

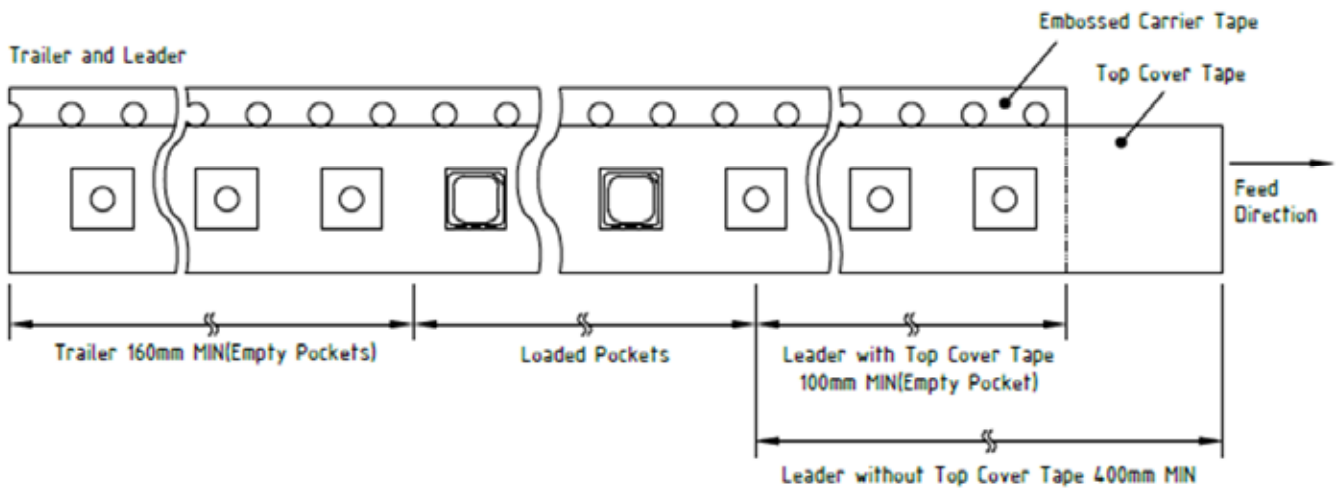
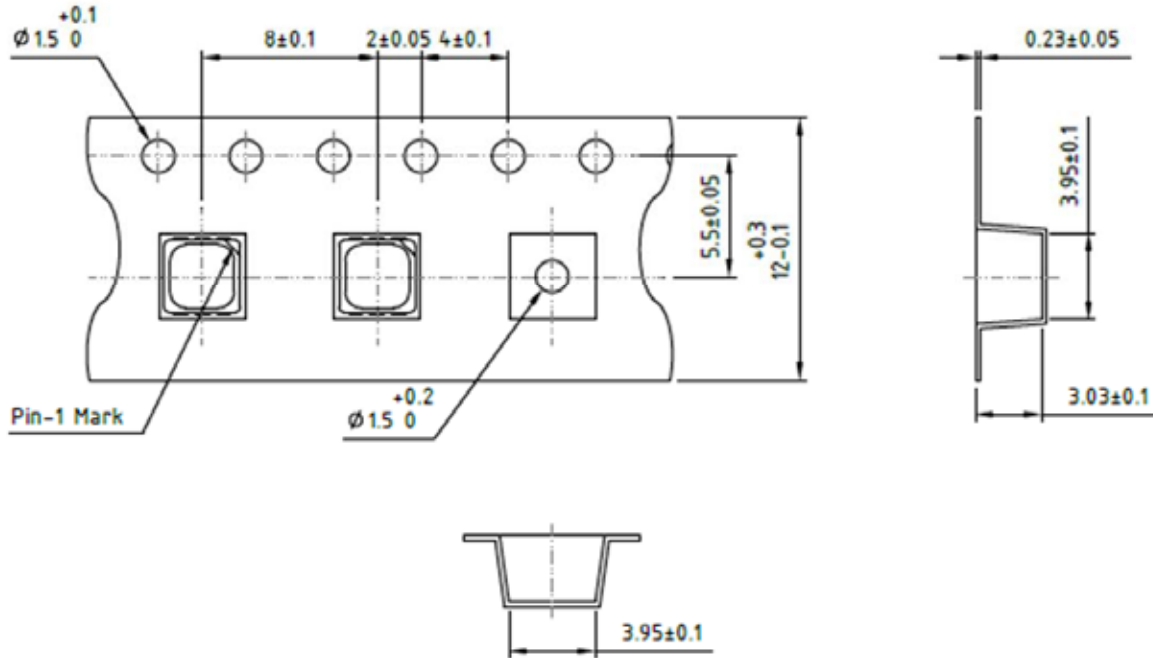
- Repairing should not be done after the LEDs have been soldered. When repairing is unavoidable, a double-head soldering iron should be used. It should be confirmed beforehand whether the characteristics of the LEDs will or will not be damaged by repairing.
- Reflow soldering should not be done more than two times.
- When soldering, do not put stress on LEDs during heating.
- After soldering, do not warp the circuit board.



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REEL PACKAGING

TAPE AND REEL DIMENSIONS



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