

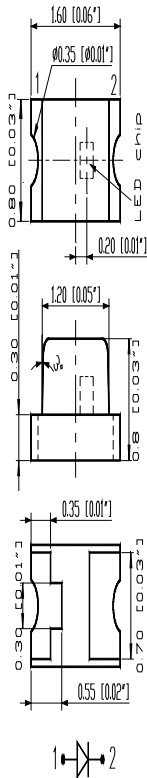
# SURFACE MOUNT LED LAMPS

## 表面黏著型發光二極體指示燈

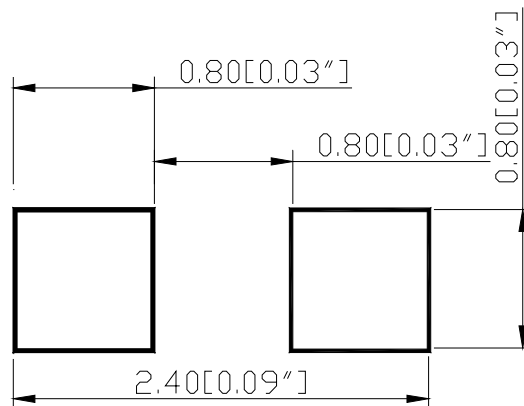
### S190 Series SMD Chip LED Lamps

Part Number: S190TB4-C

### Package outlines



### RECOMMEND PAD LAYOUT



ITEM	MATERIALS
Resin (mold)	Epoxy
Bonding wire	□ 25 μm Au
Lens color	Water transparent
Printed circuit board	BT (White)
Dice	GaN
Emitted color	Blue



**ATTENTION**  
OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC  
SENSITIVE DEVICES

### NOTES:

1. All dimensions are in millimeters (inches);
2. Tolerances are  $\pm 0.1$ mm (0.004inch) unless otherwise noted.

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Part Number: S190TB4-C

### Absolute maximum ratings (T<sub>A</sub>=25°C)

Parameter	Symbol	Value	Unit
Forward current	I <sub>f</sub>	30	mA
Reverse voltage	V <sub>r</sub>	5	V
Power dissipation	P <sub>d</sub>	135	mW
Operating temperature range	T <sub>op</sub>	-20 ~+80	°C
Storage temperature range	T <sub>stg</sub>	-20 ~+80	°C
Peak pulsing current (1/8 duty f=1kHz)	I <sub>fp</sub>	125	mA

### Electro-optical characteristics (T<sub>A</sub>=25°C)

Parameter	Test Condition	Symbol	Value			Unit
			Min	Typ	Max	
Wavelength at peak emission	I <sub>f</sub> =20mA	λ <sub>peak</sub>	465	470	480	nm
Spectral half bandwidth	I <sub>f</sub> =20mA	Δλ	--	60	--	nm
Dominant wavelength	I <sub>f</sub> =20mA	λ <sub>dom</sub>	--	465	--	nm
Forward voltage	I <sub>f</sub> =20mA	V <sub>f</sub>	3.0	3.4	4.0	V
Luminous intensity * 1	I <sub>f</sub> =20mA	I <sub>v</sub>	55	-	100	mcd
Viewing angle at 50% I <sub>v</sub>	I <sub>f</sub> =10mA	2θ <sub>1/2</sub>	--	120	--	Deg
Reverse current	V <sub>r</sub> =5V	I <sub>r</sub>	--	--	10	μA

\* 1 Note: Luminous intensity tolerance is ±10%.