



LED545-01

- Ultraviolet Light Emitting Diode
- 545 nm, 3.2 mW
- InGaN structure
- UV-resistant clear epoxy resin



Description

LED545-01 is an **InGaN** based UV LED, typically emitting at 545 nm with a typical output power of 3.2 mW. **LED545-01** features a 350x350µm chip die in a hermetically sealed UV-resistant clear 5 mm epoxy resin.

Maximum Rating ($T_{CASE} = 25^{\circ}C$)

Parameter	Symbol	Values		Unit
		Min.	Max.	
Power Dissipation, DC	P_D		190	mW
Forward Current	I_F		50	mA
Pulse Forward Current*	I_{FP}		100	mA
Reverse Voltage	V_R		5	V
Thermal Resistance	R_{thja}		300	K/W
Junction Temperature	T_J		120	$^{\circ}C$
Operating Temperature	T_{OPR}	- 40	+ 100	$^{\circ}C$
Storage Temperature	T_{STG}	- 40	+ 100	$^{\circ}C$
Soldering Temperature (max 3s)	T_{SOL}		+ 265	$^{\circ}C$

* *Duty cycle = 1%, pulse width = 10 µs*



Electro-Optical Characteristics ($T_{CASE} = 25^{\circ}C$, $I_F = 20$ mA)

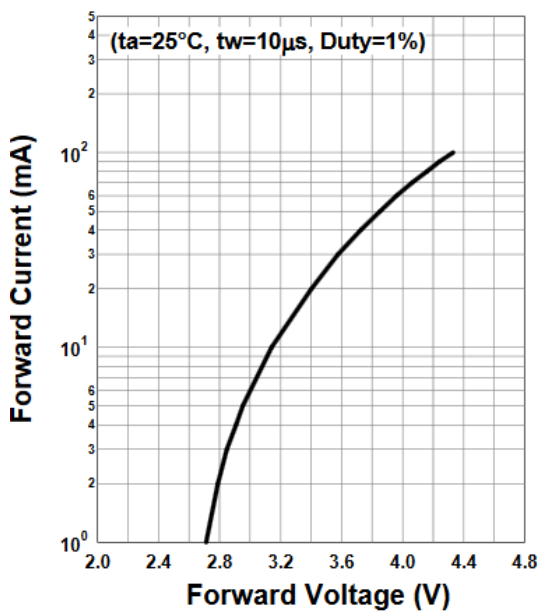
Parameter	Symbol	Values			Unit
		Min.	Typ.	Max.	
Peak Wavelength	λ_P	535	545	555	nm
Dominant wavelength	λ_D		555		nm
Spectral Width (FWHM)	$\Delta\lambda$		39		nm
Forward Voltage	V_F		3.4	3.8	V
	$V_{F PULSE}$		4*		V
Radiated Power	P_O		3.2		mW
	$P_{O PULSE}$		11*		mW
Radiant Intensity	I_E		27		mW/sr
	$I_{E PULSE}$		98*		mW/sr
Viewing Half Angle	$\Theta_{1/2}$		± 8		deg.
Rise/Fall Time	t_r		15/30		ns

**Pulse Condition: Duty cycle = 1%, pulse width = 10 µs, pulse current = 100mA*

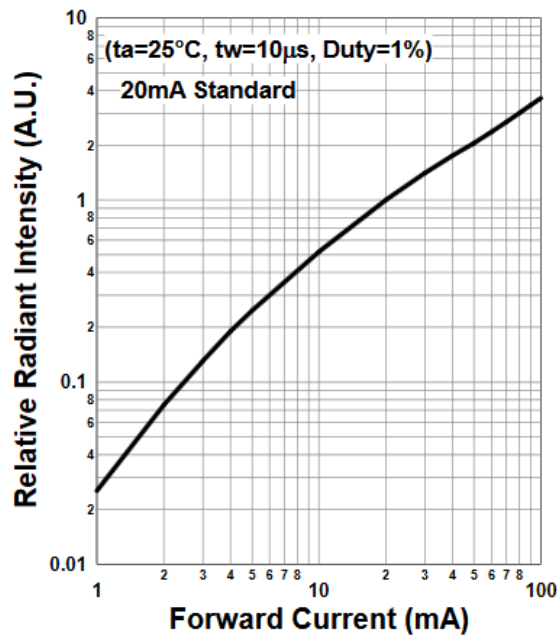


Performance Characteristics

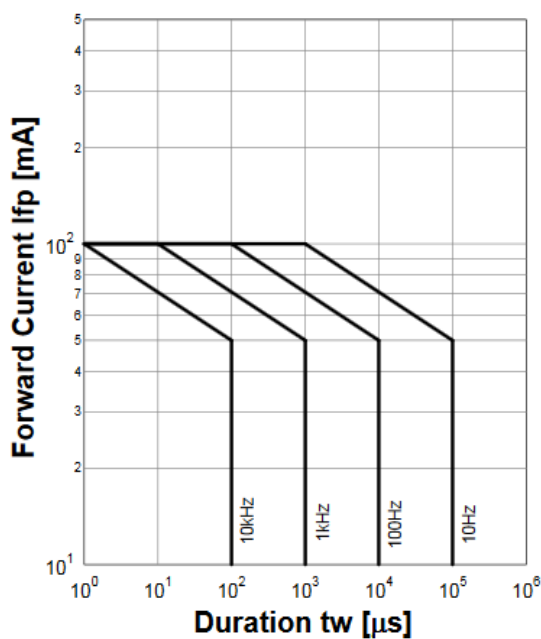
Forward Current vs. Forward Voltage



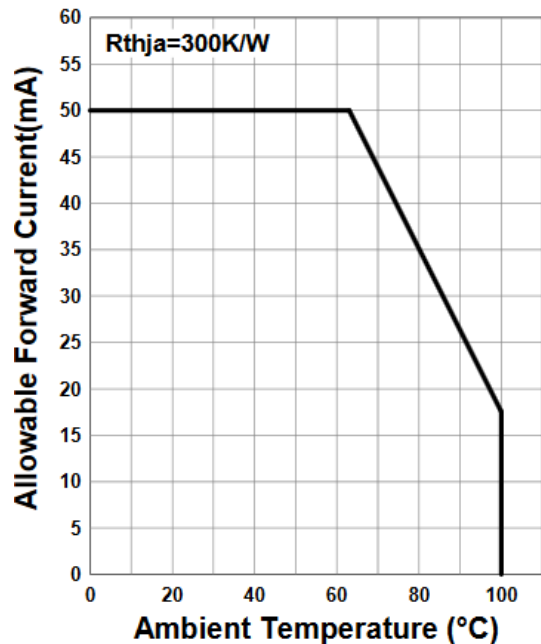
Relative Radiant Intensity vs. Forward Current



Forward Current vs. Pulse Duration



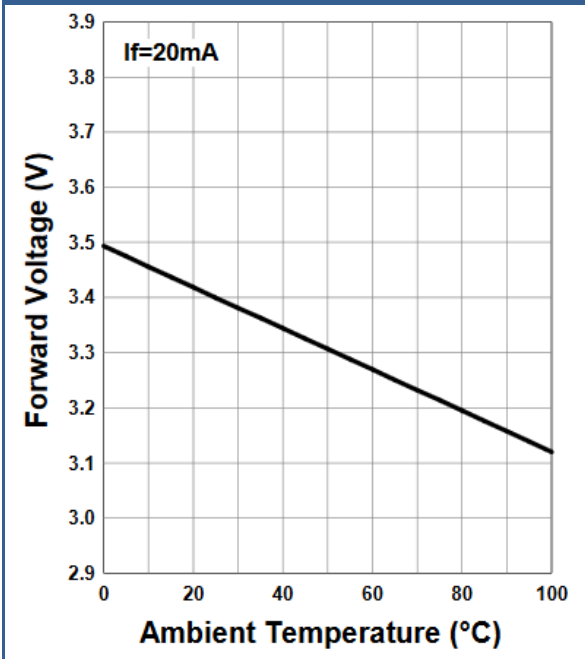
Allowable Forward Current vs. Ambient Temp.



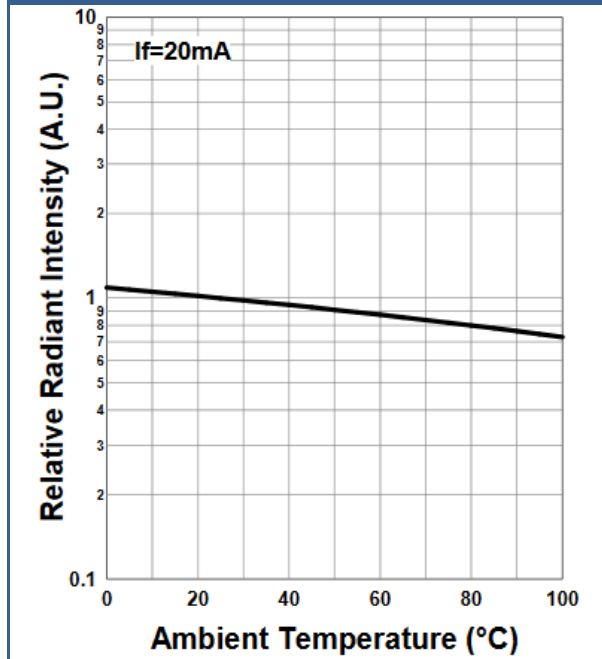


Performance Characteristics

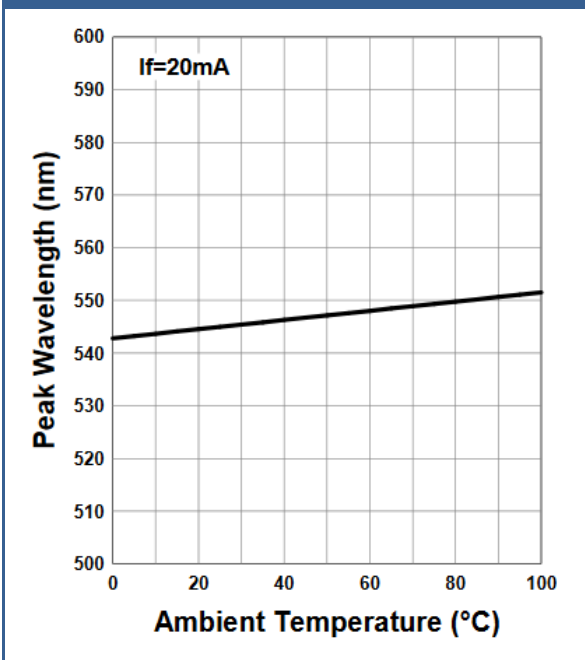
Forward Voltage vs. Ambient Temperature



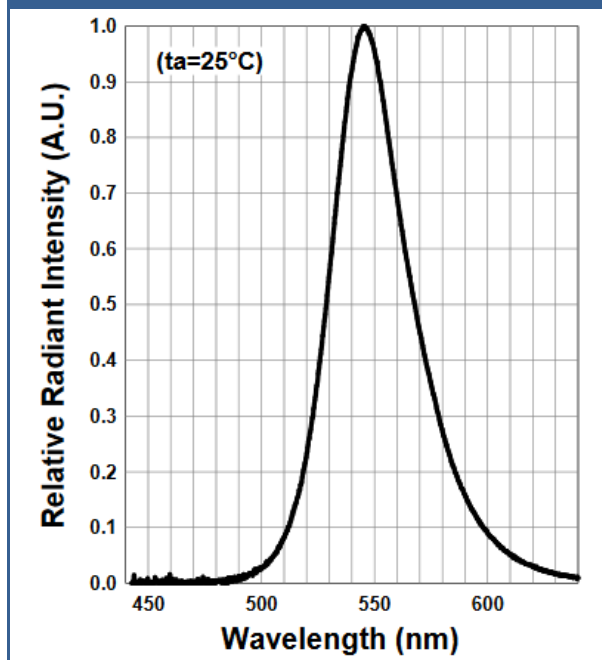
Relative Radiant Intensity vs. Ambient Temp.



Peak Wavelength vs. Ambient Temperature

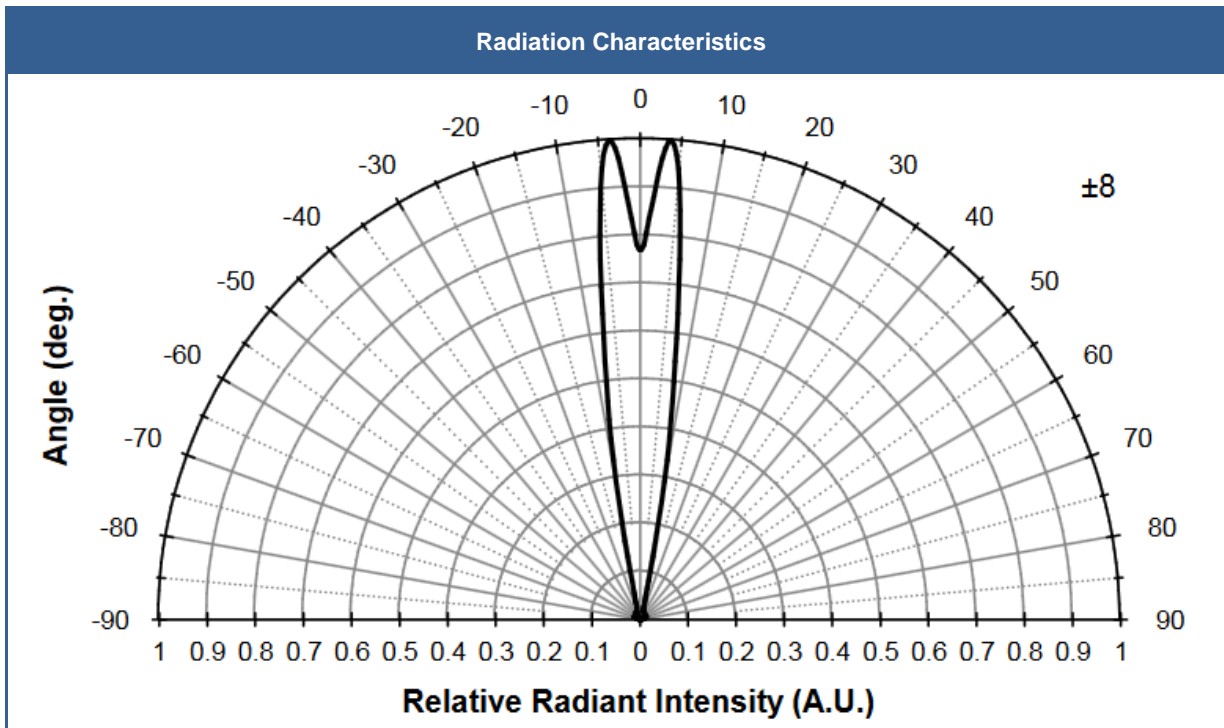


Relative Spectral Emission

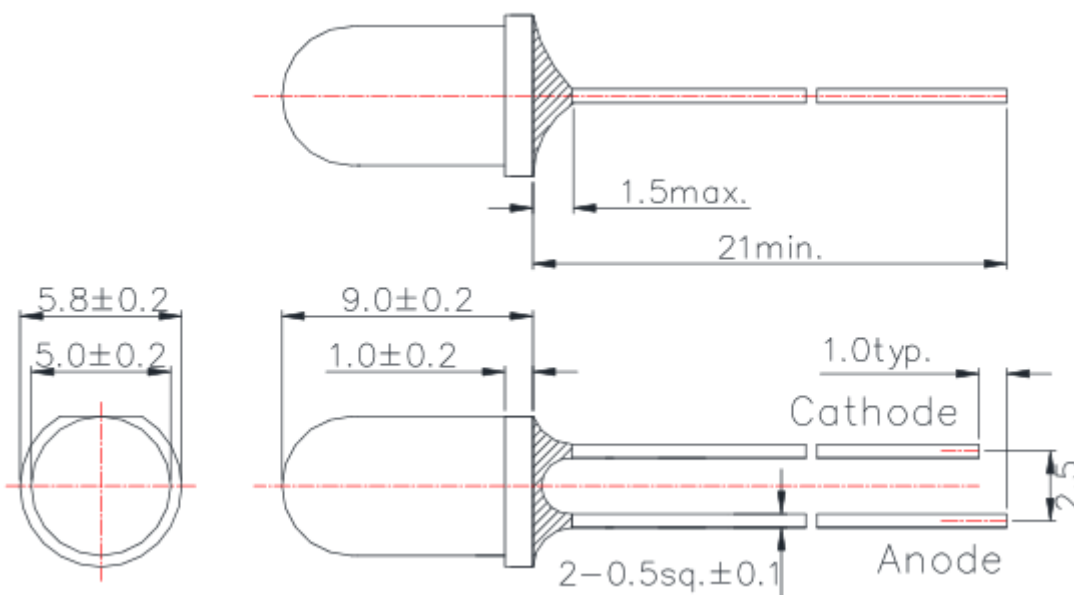




Performance Characteristics



Outline Dimensions



All dimensions in mm