

# LED525-33

- Green LED
- 525 nm, 9 mW
- Chip: InGaN, 350 x 350 μm
- 3 mm Clear Molding, Epoxy Resin
- Viewing Angle: 28°

## Description



Rev 2.0, 18.06.2019



**LED525-01** contains one InGaN LED chip die mounted on a lead frame hermetically sealed with a clear epoxy lens.

On forward bias, it emits a power radiation of typical 9 mW at a peak wavelength at 525 nm.

### Maximum Ratings (T<sub>CASE</sub>=25°C)

Demonster	Cumple of	Va	1111		
Parameter	Symbol	Min.	Max.	Unit	
Power Dissipation	PD		200	mW	
Forward Current	lF		50	mA	
Pulse Forward Current *1	IFP		100	mA	
Reverse Voltage	VF		5	V	
Thermal Resistance	Rthja		270	K/W	
Junction Temperature	TJ		120	°C	
Operating Temperature	TCASE	- 40	+ 100	°C	
Storage Temperature	Tstg	- 40	+ 100	°C	
Lead Solder Temperature *2	T <sub>SLD</sub>		+ 265	°C	

\*1 duty=1%, pulse width = 10  $\mu$ s

\*2 must be completed within 3 seconds

# Electro-Optical Characteristics (TCASE=25°C)

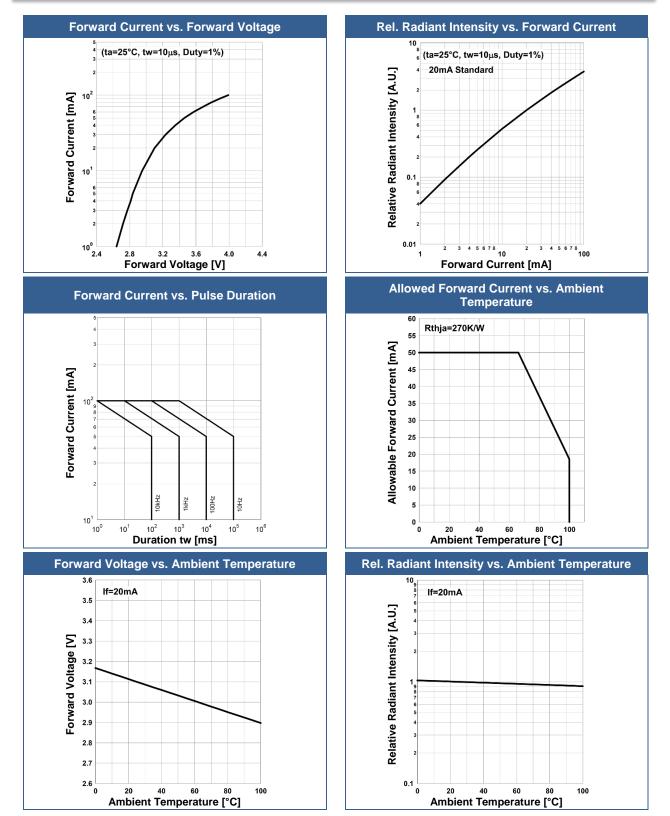
Parameter	Symbol	Conditions	Min.	Values Typ.	Max.	Unit
Peak Wavelength	$\lambda_P$	I⊧=20mA	515		535	nm
Dominant Wavelength	$\lambda_D$	I <sub>F</sub> =20mA		535		nm
Half Width	$\Delta \lambda$	I⊧=20mA		28		nm
Forward Voltage	VF	I⊧=20mA		3.1	4.0	V
	VFP	IFP=100mA		4.0		
Radiated Power *1	0	I⊧=20mA		9.0		mW
	Po	IFP=100mA		33		
Radiant Intensity *2	,	IF=20mA		36		mW/sr
	IE	IFP=100mA		130		
Luminous Flux	${\cal P}_V$	I⊧=20mA		5400		mlm
Viewing Angle	φ	I <sub>F</sub> =20mA		28		deg.
Rise Time	t <sub>R</sub>	I⊧=20mA		25		ns
Fall Time	t⊨	IF=20mA		50		ns

\*1 measured by S3584-08

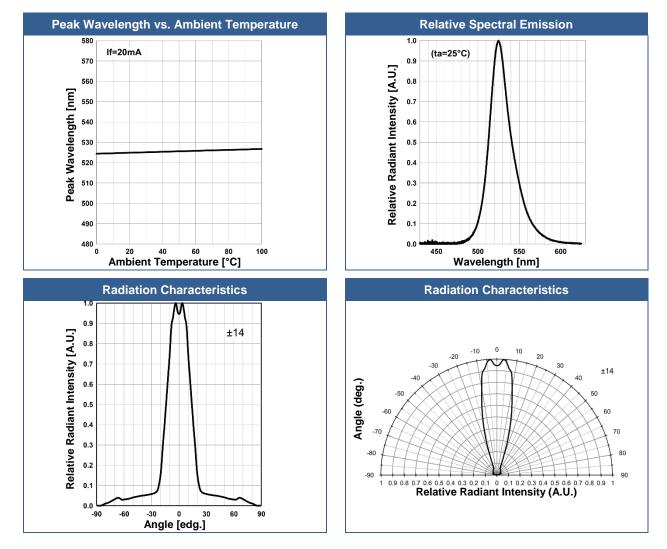
\*2 measured by CIE127-2007 Condition B



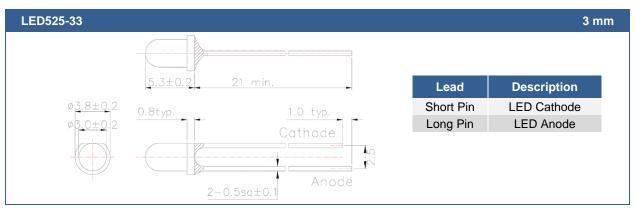
# **Typical Performance Curves**







# **Outline Dimensions**



All Dimensions in mm

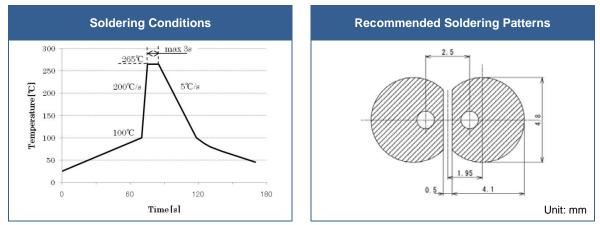


### Precautions

#### Soldering:

- Do avoid overheating of the LED
- Do avoid electrostatic discharge (ESD)
- Do avoid mechanical stress, shock, and vibration
- Do only use non-corrosive flux
- Do not apply current to the LED until it has cooled down to room temperature after soldering
- Do not solder the LED closer than 3 mm from the base of the lead.

#### **Recommended soldering conditions:**



Above table specifies the maximum allowed duration and temperature during soldering. It is strongly advised to perform soldering at the shortest time and lowest temperature possible.

#### Cleaning:

#### Cleaning with isopropyl alcohol, propanol, or ethyl alcohol is recommended

DO NOT USE acetone, chloroseen, trichloroethylene, or MKS DO NOT USE ultrasonic cleaners

#### Static Electricity:

**LEDs are sensitive to electrostatic discharge (ESD)**. Precautions against ESD must be taken when handling or operating these LEDs. Surge voltage or electrostatic discharge can result in complete failure of the device.

#### **Radiation:**

During operation these LEDs do emit light, which could be hazardous to skin and eyes, and may cause cancer. Do avoid exposure to the emitted light. Protective glasses if needed. It is further advised to attach a warning label on products/systems.

#### **Operation:**

#### Do only operate LEDs with a current source.

Running these LEDs from a voltage source will result in complete failure of the device. Current of a LED is an exponential function of the voltage across it. Usage of current regulated drive circuits is mandatory.

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The above specifications are for reference purpose only and subjected to change without prior notice