

# LED36-SMD5



# **TECHNICAL DATA**

# Mid-Infrared Light Emitting Diode, SMD

Light Emitting Diodes with central wavelength 3.65 µm series are based on heterostructures grown on InAs substrates by MOCVD. InAsSb is used in the active layer. Wide band gap solid solutions InAsSbP with P content 50% are used for good electron confinement.

LED36-SMD5 has a stable ouput power and a lifetime more then 80000 hours.

## Features

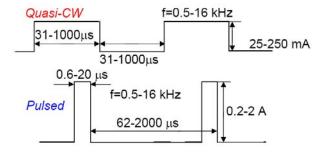
- Structure: InAsSb/InAsSbP •
- Peak Wavelength: typ. 3.65 µm
- Optical Ouput Power: typ. 30 µW qCW
- Package: SMD 5x5 mm



ltem	Condition	Rating			Unit
		Min.	Тур.	Max.	Unit
Peak Wavelength	T=300 K	3.60	3.65	3.70	μm
FWHM	150 mA CW	0.40	0.50	0.60	μm
Quasi-CW	200 mA qCW	20	30	40	μW
Optical Power					
Pulsed	1 A	180	200	220	μW
Optical Power					
Switching Time	T=300 K	10	20	30	ns
Operation Voltage	200 mA qCW				V
Operating	-240 +50				°C
Temperature					U
Emitting Area	300x300				μm
Soldering	180				°C
Temperature					C
Package	SMD type package 5x5 mm based on high				
	thermal conductivity ceramics				

### Specifications

# **Operating Regime**



#### Quasi-CW

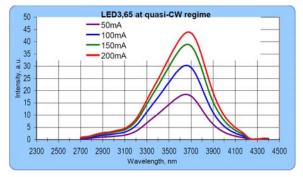
- Maximum current 220 mA
- Recommended current 150-200mA

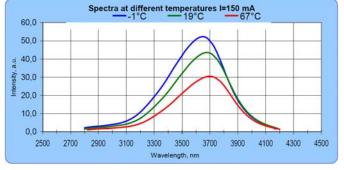
#### Pulsed

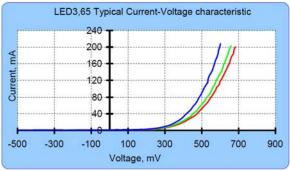
Maximum current 1 A (puls lenght 500 ns, repetition rate 2kHz)

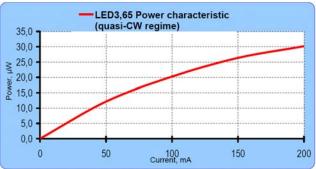


### **Typical Performance Curves**

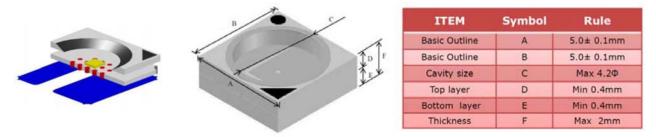








# Package



- Tiny package for surface mounting
- Anode and cathode are led to the metalized areas on the back side of the ceramic surface
- Material Low Temperature Co-fired Ceramic (LTCC):
  - thermal conductivity 25 W/mK
  - thermoresistance 8 °C/W