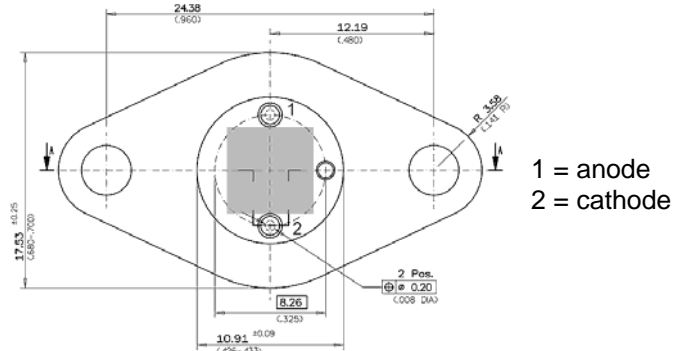


LED680-66-16100

TECHNICAL DATA

SUPER HIGH POWER RED LED

Structure: **16 power LED chips, 4 x 4 parallel array**
 Peak Wavelength: **typ. 680 nm**
 Optical Output Power: **typ. 450 mW cw @ 1.4 A**
 Package: **TO-66 with silicone + epoxy resin**



Absolute Maximum Ratings (Tc = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Power dissipation	P _D	20	W
DC forward current **)	I _F	1.8	A
Pulse forward current *)	I _{FP}	-	A
Reverse voltage	V _R	5	V
Operating lifetime	T	50.000	h
Operating case temperature	T _{OP}	-30 .. +70	°C
Storage temperature	T _{STG}	-60 .. +85	°C

*) Pulse width ≤ 10 μs, f ≤ 500 Hz

Optical-Electrical Characteristics (Tc = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Radiant flux	θ _e (680 nm)	I _F = 1.4 A	450	450	500	mW
Luminous flux	θ _v (680 nm)	I _F = 1.4 A	-	-	-	lm
Luminous intensity	I _v (680 nm)	I _F = 1.4 A	-	-	-	cd
Forward voltage	V _F	I _F = 1.4 A	7.2	7.7	8.3	V
Reverse current	I _R	V _R = 5 V			10	μA
Peak wavelength	λ _P	I _F = 1.4 A	670	680	690	nm
Spectrum half width	Δλ	I _F = 1.4 A		30		nm
Emission angle FWHM	θ _{1/2}	I _F = 1.4 A		±60		°

IMPORTANT NOTE FOR SAFE OPERATION

This high power LED must be cooled! **) Use a heat sink with a thermal resistance ≤8K/W. Maximum uncooled allowed operation current ≤80 mA. Do not view directly into the emitting area of the LED when in operation!



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