



TOYO LED ELECTRONICS LIMITED

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CODE 01

Chip Material: AlGaAs / GaAs Hi-bright Red LED Chip



ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

PARAMETER	SYMBOL	MAXIMUM RATING	UNIT
Power Dissipation	P _D	68	mW
Peak Forward Current (1/10 Duty Cycle, 0.1 Ms Pulse Width)	I _{PEAK}	80	mA
DC Forward Current	I _F	30	mA
Reverse Voltage	V _R	5	V
Operating Temperature Range	T _A	-40°C to +85°C	
Storage Temperature Range	T _{STG}	-40°C to +85°C	
Solder temperature 1/16 inch below seating plane for 3 seconds at 260°C			

ELECTRICAL OPTICAL CHARACTER AND CURVES (Ta = 25°C)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	LOCATION	TEST CONDITION
Forward Voltage	V _F	-	1.82	2.25	V	Per Chip	I _F = 10mA
Luminous Intensity	I _v	8.0	9.0	11.0	mcd	Per Chip	I _F = 10mA
Peak Emission Wavelength	λ _p	-	655	-	nm	Per Chip	I _F = 10mA
Dominant Emission Wavelength	λ _d	640	644	646	nm	Per Chip	I _F = 10mA
Spectral Line Half-Width	Δλ _{1/2}	-	20	-	nm	Per Chip	I _F = 10mA
Capacitance	C	-	40	-	pF	Per Chip	V _F = 0V; f = 1MHz
Reverse Current	I _R	-	-	10	uA	Per Chip	V _R = 5V

Note:

- Luminous intensity tolerance is ±10%;**
- Dominant Emission Wavelength tolerance is ±5%.**



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■ Typical Electro-Optical Characteristic Curve:

FIG. 1 Forward Current Vs. Forward Voltage

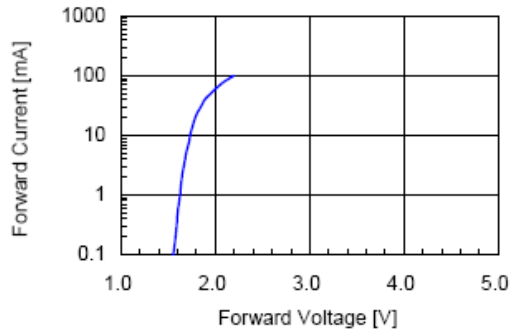


FIG. 2 Relative Intensity Vs. Forward Current

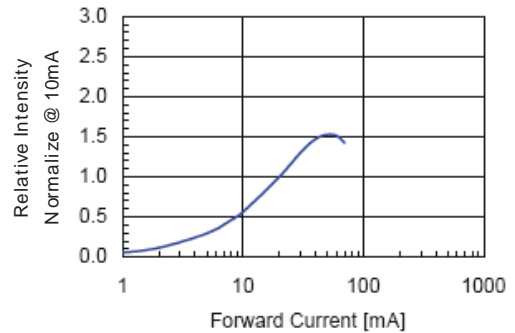


FIG. 3 Forward Voltage Vs. Temperature

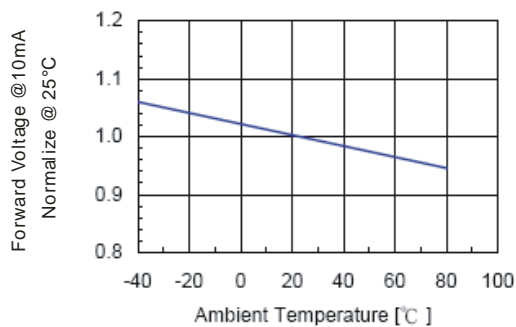


FIG. 4 Relative Intensity Vs. Temperature

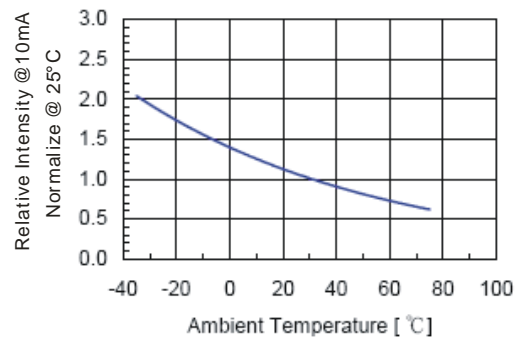


FIG. 5 Relative Intensity Vs. Wavelength

