ELECTRONICS, INC.
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NTE30135 thru NTE30139
Super Bright LED Indicators
5mm (T–1 3/4) Water Clear Lens
Bullet Head Type

Features:
- Low Power Consumption
- High Efficiency
- General Purpose Leads
- High Intensity
- All 5mm Bullet Head Super Bright Types w/Water Clear Lens:
  - NTE30135 (Yellow Green, AlGaInP)
  - NTE30136 (Yellow, AlGaInP)
  - NTE30137 (Red, AlGaInP)
  - NTE30138 (Blue, InGaN)
  - NTE30139 (White, InGaN)

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Power Dissipation, P_D
- NTE30135, NTE30136, NTE30137 . . . . . 75mW
- NTE30138, NTE30139 . . . . . 90mW

Peak Forward Current (1/10th Duty Cycle, 0.1ms Pulse Width), I_{FM} 100mA

Continuous Forward Current, I_F
- NTE30135, NTE30136, NTE30137 . . . . . 30mA
- NTE30138, NTE30139 . . . . . 25mA
- Derating Linear from +50°C . . . . . 0.4mA/°C

Reverse Voltage, V_R 5V

Operating Temperature Range, T_{opr} . . . . . –40° to +85°C

Storage Temperature Range, T_{stg} . . . . . –40° to +100°C

Lead Temperature (During Soldering, 4mm from Body, 5sec Max), T_L . . . . . +260°C

Electrical Optical Characteristics: (T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Luminous Intensity NTE30135	I_V	I_F = 20mA	600	1000	–	mcd
NTE30136			–	5000	–	mcd
NTE30137			–	4000	–	mcd
NTE30138			–	12000	–	mcd
NTE30139			–	40000	–	mcd
View Angle of Half Power	$2\theta_{1/2}$	I_F = 20mA	–	6	–	deg
Chromaticity Coordinates (NTE30139 **ONLY**)	X	I_F = 20mA	–	0.29	–	
	Y		–	0.29	–	
Color Temperature (NTE30139 **ONLY**)	CCT	I_F = 20mA	–	9500	–	K

RoHS

Electrical Optical Characteristics (Cont'd): (T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Peak Emission Wavelength NTE30135	λ_P	I_F = 20mA	–	565	–	nm
NTE30136			–	591	–	nm
NTE30137			–	630	–	nm
NTE30138			–	470	–	nm
Dominant Emission Wavelength NTE30135	λ_d	I_F = 20mA	566	570	573	nm
NTE30136			586	590	592	nm
NTE30137			618	622	627	nm
NTE30138			464	470	473	nm
Spectral Line Half–Width NTE30135, NTE30136	$\Delta\lambda$	I_F = 20mA	–	20	–	nm
NTE30137			–	15	–	nm
NTE30138			–	30	–	nm
Forward Voltage NTE30135	V_F	I_F = 20mA	1.8	2.1	2.5	V
NTE30136, NTE30137			1.8	2.0	2.4	V
NTE30138			2.8	3.0	3.4	V
NTE30139			2.8	3.0	3.2	V
Reverse Current	I_R	V_R = 5V	–	–	10	μA