



ELECTRONICS, INC.
 44 FARRAND STREET
 BLOOMFIELD, NJ 07003
 (973) 748-5089
<http://www.nteinc.com>

NTE30135 thru NTE30139 Super Bright LED Indicators 5mm, 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: ($T_A = +25^\circ\text{C}$ 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 $+50^\circ\text{C}$	.....	$0.4\text{mA}/^\circ\text{C}$
Reverse Voltage, V_R	.....	5V
Operating Temperature Range, T_{opr}	.....	-40° to $+85^\circ\text{C}$
Storage Temperature Range, T_{stg}	.....	-40° to $+100^\circ\text{C}$
Lead Temperature (During Soldering, 4mm from Body, 5sec Max), T_L$	.....	+260^\circ\text{C}$

Electrical Optical Characteristics: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

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



Electrical Optical Characteristics (Cont'd): ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Peak Emission Wavelength NTE30135	λ_P	$I_F = 20\text{mA}$	-	565	-	nm
NTE30136			-	591	-	nm
NTE30137			-	630	-	nm
NTE30138			-	470	-	nm
Dominant Emission Wavelength NTE30135	λ_d	$I_F = 20\text{mA}$	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	$\Delta\lambda$	$I_F = 20\text{mA}$	-	20	-	nm
NTE30137			-	15	-	nm
NTE30138			-	30	-	nm
Forward Voltage NTE30135	V_F	$I_F = 20\text{mA}$	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	$V_R = 5\text{V}$	-	-	10	μA

