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NTE3186 & NTE3187
Discrete Blue LED Indicators

Description:

The NTE3186 and NTE3187 are blue source color light emitting diodes made with GaN on SIC. It is recommended that a wrist strap or anit–electrostatic glove be used when handling these devices as static electricity and surge will damage these devices. All devices, equipment, and machinery must be electrically grounded.

Features:

- Low Power Consumption
- Solid State Blue Light Source
  NTE3186 (Blue Diffused)
  NTE3187 (Clear Blue)
- Suitable for use in Full Color LED Displays and Indicators in Diagnostic/Analytical Equipment

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

Reverse Voltage, V_R 5V
DC Forward Current, I_F 30mA
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width), I_F 200mA
Power Dissipation, P_D 105mW
Operating Temperature Range, T_{opr} . . . . . –40° to +85°C
Storage Temperature Range, T_{stg} . . . . . –40° to +85°C
Lead Temperature (During Soldering, .157 (4mm) below package base, 5sec max), T_L . . . +260°C

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	I_F = 20mA	–	4.5	5.5	V
Reverse Current	I_R	V_R = 5V	–	10	–	µA
Luminous Intensity NTE3186	I_V	I_F = 20mA	20	–	60	mcd
NTE3187			40	–	150	mcd
Viewing Angle NTE3186	$2\theta^1/_2$	Note 1	–	60	–	deg.
NTE3187			–	16	–	deg.

Note 1. Viewing Angle is the off–axis angle at which the luminous intensity is half the axial luminous intensity.

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Peak Emission Wave Length	λ_{PEAK}	I_F = 20mA	–	430	–	nm
Spectral Line Half Width	$\Delta\lambda$	I_F = 20mA	–	65	–	nm
Capacitance	C	V_F = 0, f = 1MHz	–	100	–	pF