

NTE30130 Infrared Emitting Diode for Remote Control and Night Vision Applications 8mm Type Package

Features:

- High Reliability
- Low-Voltage Characteristics
- Narrow Viewing Angle
- Gallium Aluminum Arsenide
- Water Clear Lens

Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Power Dissipation (Per Chip), P_D	150mW
Reverse Voltage (Per Chip), V_R	5V
Forward Current (Per Chip), I_F	
Continuous	100mA
Peak ($F = 1\text{kHz}$, Duty Ratio = 0.1%)	1A
Operating Temperature Range, T_{opr}	-25° to $+85^\circ\text{C}$
Storage Temperature Range, T_{stg}	-25° to $+85^\circ\text{C}$

Note 1. IFP Condition: Pulse Width $\leq 10\text{ms}$, Duty Cycle = 10%.

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	$I_F = 20\text{mA}$	1.1	–	1.4	V
		$I_F = 100\text{mA}$	–	1.3	1.6	V
Reverse Current	I_R	$V_R = 5\text{V}$	–	–	10	μA
Peak Emission Wavelength	λ_p	$I_F = 20\text{mA}$	–	940	–	nm
Half Intensity Angle	$2\theta_{1/2}$	$I_F = 20\text{mA}$	–	50	–	degree
Radiant Intensity	I_E	$I_F = 20\text{mA}$	–	15	–	mw/sr
		$I_F = 100\text{mA}$	–	60	–	mw/sr
Junction Capacity	C_j	$V_R = 0\text{V}$, $f = 1\text{MHz}$	–	50	–	pF
Rise/Fall Time	t_r/t_f	$I_{FP} = 100\text{mA}$, $f = 1\text{kHz}$, $t_p/T = 1\%$	–	1	–	ns

