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NTE30132 Infrared Emitting Diode 1.9mm Type SMD Package

Description:

The NTE30132 is an infrared emitting diode in a miniature SMD package which is molded in a water clear plastic with a spherical top view lens. This device is spectrally matched for use with silicon photodiode and phototransistor type devices such as the NTE30133.

Features:

- Small Double-End Package
- High Reliability
- Low Forward Voltage
- Gallium Aluminum Arsenide Chip Material
- Water Clear Lens
- For Use with NTE30133

Applications:

- PCB Mounted Infrared Sensor
- Infrared Emitting for Miniature Light Barrier
- Floppy Disk Drive
- Optoelectronic Switch
- Smoke Detector

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

Continuous Forward Current, I_F	65mA
Peak Forward Current (Note 1), I_{FP}	1A
Reverse Voltage, V_R	5V
Power Dissipation (at or below $T_A = +25^\circ\text{C}$), P_D	130mW
Operating Temperature Range, T_{opr}	-40° to $+85^\circ\text{C}$
Storage Temperature Range, T_{stg}	-40° to $+85^\circ\text{C}$
Soldering Temperature (5sec Max), T_{sol}	$+260^\circ\text{C}$

Note 1. Pulse Width $\leq 100\mu\text{s}$, Duty Cycle $\leq 1\%$.



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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Radiant Intensity	E_e	$I_F = 20\text{mA}$	3.0	5.0	–	mW/sr
		$I_F = 100\text{mA}$, Note 1	–	25	–	mW/sr
Peak Wavelength	λ_p	$I_F = 20\text{mA}$	–	940	–	nm
Spectral Bandwidth	$\Delta\lambda$	$I_F = 20\text{mA}$	–	45	–	nm
Forward Voltage	V_F	$I_F = 20\text{mA}$	–	1.2	1.5	V
		$I_F = 100\text{mA}$, Note 1	–	1.4	1.8	V
		$I_F = 1\text{A}$	–	2.6	4.0	V
Reverse Current	I_R	$V_R = 5\text{V}$	–	–	10	μA
View Angle	$2\theta_{1/2}$	$I_F = 20\text{mA}$	–	25	–	deg.

Note 1. Pulse Width $\leq 100\mu\text{s}$, Duty Cycle $\leq 1\%$.

