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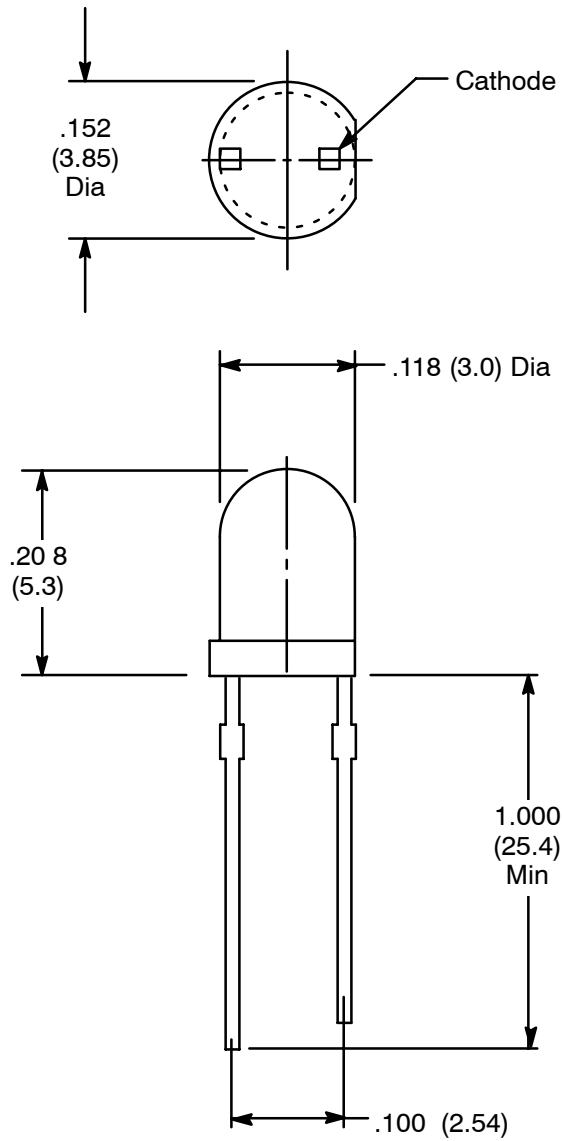
NTE30051 & NTE30052 Infrared Phototransistor

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

Sensitive Area, AA	0.19mm
Power Dissipation, P_D	150mW
Collector-Emitter Voltage, V_{CEO}	30V
Emitter-Collector Voltage, V_{ECO}	5V
Operating Temperature Range, T_{opr}	-25° to $+85^\circ\text{C}$
Storage Temperature Range, T_{stg}	-40° to $+100^\circ\text{C}$
Lead Temperature (During Soldering, .062 (1.6mm) from case bottom, 5sec max), T_L	
NTE30051	$+240^\circ\text{C}$
NTE30052	$+260^\circ\text{C}$

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Angle of Half Sensitive NTE30051	2 θ 1/2	$I_C = 1\text{mA}$, $E_e = 0\text{mW/cm}^2$	–	20	–	Degree
NTE30052			–	38	–	Degree
Collector-Emitter Voltage	V_{CEO}	$I_C = 1\text{mA}$, $E_e = 0\text{mW/cm}^2$	30	–	–	V
Emitter-Collector Voltage	V_{ECO}	$I_C = 100\mu\text{A}$, $E_e = 0\text{mW/cm}^2$	–	5	–	V
Collector-Emitter Saturation Voltage	V_{CES}	$I_C = 0.5\text{mA}$, $I_b = 100\mu\text{A}$	–	–	0.4	V
Collector Current (Saturation) NTE30051	I_C	$V_{CE} = 5\text{V}$, $E_e = 0.5\text{mW/cm}^2$	0.2	1.5	–	mA
NTE30052			0.8	3.0	12	mA
Collector Dark Current	I_{CEO}	$V_{CE} = 20\text{V}$, $E_e = 0\text{mW/cm}^2$	–	–	100	nA
Rise Time	t_r	$V_{CE} = 5\text{V}$, $I_C = 1\text{mA}$, $R_L = 1000\Omega$	–	15	–	μs
Fall Time	t_f	$V_{CE} = 5\text{V}$, $I_C = 1\text{mA}$, $R_L = 1000\Omega$	–	15	–	μs
Peak Wavelength	λ_p		–	900	–	nm
Sensitivity Wavelength	λ		500	–	1100	nm

NTE30051**NTE30052**