ELECTRONICS, INC.
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NTE3034A
Silicon NPN Phototransistor

Features:
- Spectral Range of Sensitivity: 450 to 1100nm (Typ)
- Package: Sidelooker, Epoxy
- High Photosensitivity

Applications:
- A Variety of Manufacturing and Monitoring Applications
- Photointerrupters

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

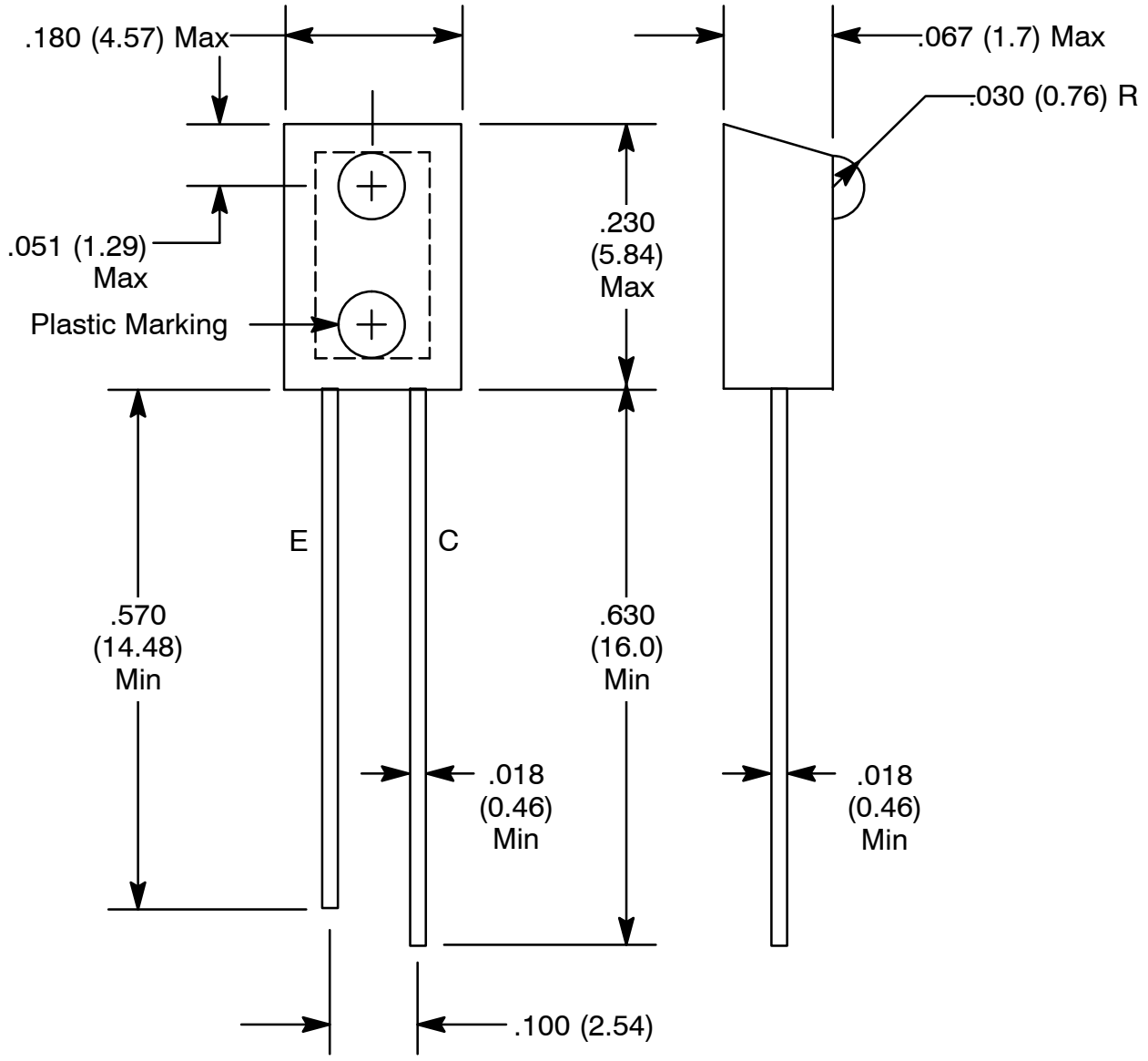
Collector–Emitter Voltage, V_{CE} 30V
Emitter–Collector Voltage, V_{EC} 7V
Collector Current, I_C 50mA
Collector Surge Current ($\tau < 10\mu s$), I_{CS} 100mA
Total Power Dissipation, P_{tot} 100mW
Operating Temperature Range, T_{opr} . . . . . –40° to +100°C
Storage Temperature Range, T_{stg} . . . . . –40° to +100°C
Thermal Resistance, Junction–to–Ambient, R_{thJA} 750K/W
ESD Withstand Voltage, V_{ESO} 2000V

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Wavelength of Maximum Sensitivity	$I_{S\ max}$		–	880	–	nm
Radiant Sensitivity Area	A		–	0.11	–	mm^2
Dimensions of Chip Area	L x W		0.55 x .0.55 (Typ)			mm
Half Angle	φ		–	±35	–	°
Capacitance	C_{CE}	V_{CE} = 0V, f = 1MHz, E = 0	–	7.5	–	pF
Photocurrent	I_{PCE}	λ = 950nm, E_o = 0.5mW/cm^2, V_{CE} = 5V	250	–	–	μA
		E_V = 1000 lx, Std. Light A, V_{CE} = 5V	–	3200	–	μA
Dark Current	I_{CEO}	V_{CE} = 20V, E = 0	–	1	50	nA
Rise and Fall Time	t_r, t_f	I_C = 1mA, V_{CC} = 5V, R_L = 1kΩ	–	10	–	μs
Collector–Emitter saturation Voltage	$V_{CE(sat)}$	Threefold Saturated	–	150	–	mV

Rev. 7–19

RoHS


.180 (4.57) Max
.067 (1.7) Max
.030 (0.76) R
.051 (1.29)
Max
Plastic Marking
.230
(5.84)
Max
E
C
.570
(14.48)
Min
.630
(16.0)
Min
.018
(0.46)
Min
.018
(0.46)
Min
.100 (2.54)