Physical Constants
(in units frequently used in semiconductor electronics)

Electronic charge	q	1.602×10^{-19} C
Speed of light in vacuum	c	2.998×10^{10} cm s^{-1}
Permittivity of vacuum	ε_0	8.854×10^{-14} F cm^{-1}
Free electron mass	m_0	9.11×10^{-31} kg
Planck's constant	h	6.626×10^{-34} J s
		4.135×10^{-15} eV s
Boltzmann's constant	k	1.38×10^{-23} J K^{-1}
		8.62×10^{-5} eV K^{-1}
Avogadro's number	A_0	6.022×10^{23} molecules $(g\ mole)^{-1}$
Thermal voltage	$V_t=kT/q$	
at 80.6° F (300K)		25.86 mV

Conversion Factors

1 Å = 10^{-8} cm = 0.1nm
1 mil = 10^{-3} inch = 25.4 μm
1 eV = 1.602×10^{-19} J
1 J = 10^7 erg