Physics 121 Quantities

Quantity	Variable	Units (SI)	Sym-bol	Other Units	Comments
Mass	m	kilogram	kg	gram,g	
Velocity	**v**	meters/ second	m/s	km/s	
Force	**F**	Newtons	N	$kg{\cdot}m/s^2$	F = m a
Acceleration	**a**	meters/ $second^2$	m/s^2		
Potential Energy	U, P.E.	Joules	J	eV, keV, MeV	Joule = $kg\ m^2/s^2$
Charge	q,Q	Coulombs	C		
E. Field	**E**, E	Newtons/ Coulomb	N/C		**F =** q **E**
Electric Potential	V	Joules/ Coulomb	J/C	Volts, V	V = U/q, "Voltage" ="E.M.F"="Potential"
Capacitance	C	Farads	F		C=Q/V
	B		T	gauss	
Magnetic Flux		Tesla $meter^2$		Weber	
Power	P	Watts		Joule/sec	E=Pt P=IV=I^2R
	R		Ω		V=IR
Current		Amperes	A	mA	
Wavelength			m	nm, mm	
	f		Hz	GHz, MHz	c=λf
Position	x,y,z, or r	meters	m	mm,cm,nm	r = dist. from a point

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