



GENERAL STANDARDS

SHORT FORMS

(ABBREVIATIONS AND SYMBOLS)

1. PURPOSE. This standard establishes short forms for use at TEKTRONIX.
2. REFERENCES. This standard draws from many sources, including standards published by the Institute of Electrical and Electronics Engineers (IEEE), National Bureau of Standards, United States of America Standards Institute (formerly American Standards Association), and the Federal Government including the Department of Defense. Unit symbols (short forms for units) in this standard agree with IEEE Standard No 260 "Standard Symbols for Units" which reflects current practices of the International Organization for Standardization and the International Electrotechnical Commission.
3. USE AND APPLICATION. This standard applies throughout the company. Should any discrepancy exist between a short form given in this standard and that given in any other TEKTRONIX Standard, use the short form given in this standard.
4. ARRANGEMENT. This standard arranges the list of short forms and corresponding terms in two ways: In Part 1, you will find the entries listed alphabetically according to the term; in Part 2, alphabetically according to the short form.
5. DEFINITIONS.
SHORT FORM: Any abbreviation or symbol that may be used in place of a word or group of words.
6. GUIDE TO USING SHORT FORMS.
 - 6.1 GENERAL RULES FOR USE OF SHORT FORMS.
 - 6.1.1 Inclusion in this standard of a short form does not mean that you ought to use this term in preference to the corresponding spelled-out term; particular circumstances of usage and space limitation govern this choice. (A good rule of thumb for determining whether you should use a short form is this: If you have doubt, spell the term out.)
 - 6.1.2 Wherever possible, avoid using short forms with which the reader may be unfamiliar. If space limitations or other considerations require the use of an unfamiliar short form, you should explain this short form as follows:
In text: The first time you use the short form, follow it in parentheses with the spelled-out term it abbreviates. After that, use only the short form.
In tables: Include explanatory notes or keys.

Short Forms

(Abbreviations and Symbols)



6.2 CAPITALIZING SHORT FORMS.

6.2.1 Capitalizing Short Forms For Terms Identified By An Asterisk.

In front of certain terms you'll note an asterisk (*). When you write the short form for a term so identified, maintain the distinction between upper- and lower-case letters. For example, always write the short form for megahertz as "MHz," never as "MHZ," nor as "mhz."

6.2.2 Capitalizing All Other Short Forms. Generally, you should also write all other short forms (those for terms not marked with an asterisk) as they appear in this standard. On drawings however, capitalize all but asterisked-term short forms. In headings, titles, and front panels, you may write these other short forms to agree with surrounding type. That is, if all other front-panel entries are in upper-case type (capital letters), you may write these non-asterisked-term short forms, too, in upper case.

6.3 SUBSCRIPTS AND SUPERSSCRIPTS. Always observe indicated placement of subscripts and superscripts.

6.4 FORMING PLURALS OF SHORT FORMS. Use the same form to indicate both singular and plural.

6.5 PUNCTUATING SHORT FORMS. Do not include a period as part of any short form.

6.6 COMBINING SHORT FORMS. When you form a combined unit symbol through multiplication of one unit by another, separate the symbols for each of the units by a raised dot (Example: "ft·lbf," the short form for "foot pound-force"). For combined short forms other than unit symbols, unless the combined short form might otherwise confuse the reader use no separating mark or space.

7. OBTAINING SHORT FORMS NOT LISTED IN THIS STANDARD. While reasonably complete, this list doesn't include all short forms that TEKTRONIX communication might call for. If you don't find a term for which you seek the short form, get in touch with Chuck Samuel, Chairman of the Abbreviations Subcommittee of the Technical Terminology Committee. The subcommittee will establish for you an appropriate short form.

Short Forms

(Abbreviations and Symbols)



Part 1

TERM TO SHORT FORM

A

absolute	abs	amplitude	ampl
acceptable quality level	AQL	amplitude modulation	AM
accessory	acc	and	&
actual	act	*angstrom	Å
actuator	actr	angular velocity	ω
adapter	adpt	anneal	anl
additional	addl	anodize	anod
adhesive	adh	antenna	ant
adjust	adj	application	appl
admittance (in mhos)	Y	approved	appd
alignment	align	approximate	approx
alligator	gator	approximately equal to	≈ or ≈
allowance	allow	*arsenic	As
alloy	aly	assemble	assem
alternate	alt	assembly	assy
alternating current	AC	assistant	asst
alternating current volts	VAC	astigmatism	astig
altitude	alt	atmosphere	atm
*aluminum	Al	attach, attachment	atch
ambient	amb		
American Diecasting Institute	ADCI	attention	attn
American Society for Testing and Materials	ASTM	attenuation	atten
American Standards Association (use United States of American Standards Institute)		attenuator	atten
American wire gage	AWG	*atto	a
amount	amt	audio frequency	AF
*ampere	A	automatic	auto
*ampere-hour	Ah	automatic-frequency control	AFC
*ampere-turn	At	automatic-gain control	AGC
amplifier	ampl	automatic-noise limiter	ANL
		automatic-phase control	APC
		automatic-volume control	AVC

*See page 2, paragraph 6.2.1

Abbreviations and Symbols



auxiliary
average
average outgoing quality
level

aux
avg

AOQL

bill of lading
bill of material
binding
black
block
blocking oscillator
blower
blue
board
bolt circle
book
bottle
bottom
bracket
brass
brazing

BL
BM
bind
blk
blk
BO
blo
blu |
bd
BC
bk
btl
bot
bkt
brs
brzg

B

baffle
balance
banana
bandwidth
barrel
base
basic
battery
*Baume'
bearing
beat frequency
beat-frequency oscillator
*bel
bend down
bend up
*beryllium

baf
bal
ban
bw
bbl
b
bsc
bat
Be'
brg
BF
BFO
B
BDN
BUP
Be

break
bridge
bright, brightness

Brinell hardness
Brinell-hardness number
*British thermal unit
broach
bronze
brown
Brown and Sharpe gage
bulkhead
bundle
bushing
by (used between dimensions)

brk |
brdg
brt |

BH
BHN
Btu
bro |
brz
brn |
B&SG
bhd
bdl
bush
x

*See page 2, paragraph 6.2.1

Abbreviations and Symbols



C

cabinet	cab	change	chg
cable	cbl	channel	ch
*cadmium	Cd	characteristic impedance	Z_0
calibrate	cal	charge	chg
calibration	cal	charge (in coulombs)	Q
calibrator	cal	charger	chgr
camera	camr	chassis	chas
*candela	cd	check	chk
capacitive reactance	X_C	*chlorine	Cl
capacitor	cap	chopping	chop
*carbon	C	*chromium	Cr
carbon (paper or ribbon only)	cbn	circle	cir
carrying	carry	circuit, circuitry	ckt
carton	ctn		
cartridge	ctg	*circular mil	cmil
case harden	CH	circular pitch	CP
casting	cstg	circumference	circ
catalog	cat	class	cl
cathode follower	CF	clear	clr
cathode-ray oscilloscope (see also oscilloscope)	CRO	clearance	cl
cathode-ray tube	CRT	clockwise	cw
center	ctr	closure	clos
centerline	CL	coaxial	coax
center of gravity	CG	*cobalt	Co
center tap	CT	coefficient	coef
center to center	C-C	cold rolled	CR
	C	cold-rolled steel	CRS
*centi	cm	collector	coll
*centimeter	cm/s	column	col
*centimeter per second	cer	commercial	coml
ceramic	cert	common	com
certificate	cham	common-mode rejection	CMR
chamfer		common-mode rejection ratio	CMRR

*See page 2, paragraph 6.2.1



company	co	couple	cpl
comparison voltage	V_C	coupling	cplg
compartment	compt	cover	cov
compensate	comp	critical	crit
composite	comp	cross section	xsect
composition	comp	crystal	xtal
compound	comp	crystal oscillator	xtal osc
concentric	conc	*cubic centimeter	cm^3
conductance	G	*cubic foot per minute	ft^3/min
conductor	cond	*cubic foot	ft^3
connector	conn	*cubic foot per second	ft^3/s
constant	const	*cubic inch	in^3
contact	cont	*cubic meter	m^3
continue	cont	*cubic millimeter	mm^3
continuous wave	CW	*cubic yard	yd^3
contour	ctr	current	cur
conversion	conv	*current (in amperes)	I
converter	conv	current transformer	Ixfmr
coordinate	coord	Customer Service	CS
*copper	Cu	cutoff	co
copy	cpy	*cycle per minute	c/min
copyright	©	*cycle per second (to indicate	c/s
corner	cor	electrical frequency use term	
corporation	corp	hertz in lieu of cycle per	
corrosion resistant	CRE	second)	
corrosion-resistant steel	CRES	cylinder	cyl
*coulomb	C		
counter	ctr		
counter-electromotive force	CEMF		
counterpunch	cpunch		
counterbore	cbore		
counterclockwise	ccw		
counterdrill	cdrill		
countersink	csk		

*See page 2, paragraph 6.2.1

Abbreviations and Symbols



D

*deci	d	detector	det
*decibel	dB	deviation	dev
*decibel referred to 1 milliwatt	dBm	diagonal	diag
*decibel referred to 1 volt	dBV	diagram	diag
*decibel referred to 1 watt	dBW	diameter	dia
*decibels above reference noise	dBm	diametral pitch	DP
decimal	dBm	dielectric	diel
decouple	dec	differential	diff
decrease	dcpl	dimension	dim
deep	decr	direct current	DC
deep drawn	dp	direct-current voltage bridge	DCVB
deflect	DD	direct-current volts	VDC
deflection factor	defl	direct-current working volts	DCVW
deflection plate	DF	discharge	disch
*degree (plane angle)	DP	disconnect	disc
*degree (temperature interval or difference)	...°	discriminator	discr
*degree Celsius (centigrade)	deg	display	dis
*degree Fahrenheit	°C	dissipation factor	D factor
*degree Kelvin (absolute)	°F	distribute, distribution	distr
*deka	°K	division	div
delay	da	door	dr
delay line	dly	double	dbl
delayed automatic-volume control	DL	double pole	DP
department	DAVC	double sideband	DSB
depth	dept	double throw	DT
description	d	doubler	dblr
design	descr	down	dn
Design Completion	dsgn	drawing	dwg
detail	DC	drawn	dr
	det	drill	dr
		duplicate	dup
		dynamic	dyn

*See page 2, paragraph 6.2.1

Abbreviations and Symbols



E

each	ea	equal to or greater than	$\geq$
eccentric	ecc	equal to or less than	$\leq$
effective	eff	equalizer	eq
efficiency	eff	equation	eq
electric	elec	equipment	equip
electrolytic	elect	equivalent	equiv
electromagnetic compatibility	EMC	estimate	est
electromagnetic interference	EMI	example	ex
electromotive force	EMF or	expansion	exp
electron-coupled oscillator	ECO	extension	ext
*electron volt	eV	external	ext
Electronic Industries		extremely high frequency	EHF
Association	EIA	extrusion	extr
elevate	elev		
eliminate	elim		
elongation	elong		
emission	emis		
emitter	emit		
emitter follower	EF		
enclose	encl		
engineer	engr		
Engineering Change Order	ECO		
Engineering Design Manual	EDM		
Engineering Instrument			
Specification	EIS		
Engineering Order	EO		
Engineering Release	ER		
envelope	env		
equal (on drawings)	eq		
equal to	=		

*See page 2, paragraph 6.2.1



F

fabrication	fab	*foot	ft
Factory Calibration Procedure	FCP	*foot candle	fc
Factory Test Limit	FTL	*foot pound-force	ft·lbf
falltime	t_f	force	F
family	fmly	forward	fwd
*farad	F	four pole	4P
Federal Specification	Fed Spec	frame	fr
Federal Stock Number	FSN	free cutting	FC
female	fe	free on board	FOB
*femto	f	frequency	freq
figure	fig	frequency modulation	FM
figure of merit	Q	front	fr
field	fld	full indicator reading	FIR
field effect	FE	full scale	FS
field-effect diode	FED	function	funct
field-effect transistor	FET		
filament	fil		
fillet	fil		
fillister head (screw)	FilH		
filter	fil		
finish	fin		
finish all over	FAO		
fitting	ftg		
fixed	fxd		
fixture	fix		
flange	flg		
flat head (screw)	FH		
flexible	flex		
floating	fltg		
*fluorine	F		
focus and intensity	F&I		

*See page 2, paragraph 6.2.1

Abbreviations and Symbols



G

gage
*gallium
*gallon
galvanometer
*gauss
general
generator
*germanium
*giga
gigacycle per second
(use gigahertz)
*gigahertz
*gigohm
*gilbert
glaze
*gold (aurum)
government
grade
graduation
grain
*gram
graticule
*gravity unit
gray
greater than
green
grid
grommet
groove
ground
guaranteed minimum value

H

half hard

ga	handbook	hbk
Ga	handle	hdl
gal	hard drawn	HD
gal	hardware	hdw
G	harmonic	har
gen	harness	hrn
gen	head	hd
Ge	heat treat	ht tr
G	heater	htr
	*hecto	h
	height	h
GHz	*henry	H
GΩ	*hertz (to indicate mech-	Hz
Gb	anical frequency use term	
gl	cycle per second in lieu of	
Au	hertz)	
govt	hexagon	hex
gr	hexagon head (screw)	HH
grad	high	h
gr	high frequency	HF
g	high-frequency oscillator	HFO
grat	high pass	HP
g	high potential	hi pot
gy	high voltage	HV
>	history	hist
grn	holder	hldr
g	hood	hd
grom	horizontal	horiz
grv	horizontal centerline	HCL
gnd	*horsepower	hp
GMV	hot rolled	HR
	hot-rolled steel	HRS
	*hour	h
	housing	hsg
1/2H	*hydrogen	H

*See page 2, paragraph 6.2.1

Abbreviations and Symbols



identification	ident		
illuminate	illum		
illustration	illus	insulated	ins
impedance	Z	insulated-gate field-effect	
incandescent	inc	transistor	IGFET
*inch	in	insulation resistance	IR
*inch ounce-force	in·ozf	intensity	inten
include	inc	integrated circuit	IC
incorporated	inc	interchangeable	intchg
increase	incr	interconnecting	intconn
increment	incr	interference	intfr
indicate, indicator	ind	interior	int
		intermediate	intmed
inductance-capacitance	LC	intermediate frequency	IF
inductance-capacitance- resistance	LCR	intermittent	intmt
inductance	L	internal	int
inductive reactance	X_L	international	intl
industrial	ind	inverse	inv
infinite	inf	invert	inv
infinity	∞	inverter	inv
information	info	*iridium	Ir
input	in	*iron (ferrum)	Fe
inside diameter	ID	irregular	irreg
inside moldline	IML		
inside radius	IR		
inspect	insp		
instantaneous	inst		
Institute of Electrical and Electronics Engineers	IEEE		
instructions	inst		
instrument	instr		

*See page 2, paragraph 6.2.1



J

jacket
Joint Industry-Military
Standard
*joule
junction

jkt

JIMS

J

jct

L

laboratory
lacquer
*lambert
laminate, lamination

lab

laq

L

lam

lg

lat

Pb

l

LF

LH

LR

l

LOA

<

ltr

lev

lt

lim

LS

ln

lin

l

LO

loc

lokwash

log

ln

lg

LTPD

LF

LP

K

*kilo
*kilocycle per second
(to indicate electrical
frequency use term kilo-
hertz)
*kiloelectronvolt
*kilogram
*kilohertz
*kilohm
*kilovolt
*kilovoltampere
*kilowatt

k

kc/s

keV

kg

kHz

k Ω

kV

kVA

kW

large
lateral
*lead (plumbum)
left
left front
left hand
left rear
length
length overall
less than
letter
lever
light
limit
limit switch
line
linear
*liter
local oscillator
locate
lockwasher
logarithm
logarithm, natural
long
lot tolerance percent defective
low frequency
low pass

*See page 2, paragraph 6.2.1

Abbreviations and Symbols

[illegible]

*See page 2, paragraph 6.2.1

Abbreviations and Symbols



M

micro micro (use pico)
*microampere
*microfarad
*microhenry
*microinch
*micromho
*microsecond
*microsiemens
*microvolt
*microwatt
middle
midrange
military
Military Specification
Military Standard
*milli
milli micro (use nano)
*milliampere
*milligram
*millihenry
*millimeter
*millisecond
*millisiemens
*millivolt
*milliwatt
minimum
*minute (plane angle)
*minute (time)
miscellaneous
model
modification, modify

modulated continuous wave
moldline

μ A
 μ F
 μ H
 μ in
 μ mho
 μ s
 μ S
 μ V
 μ W
mid
midr
mil
Mil Spec
Mil Std
m

mA
mg
mH
mm
ms
mS
mV
mW
min
...'
min
misc
mdl
mod

MCW
ML

molding
*molybdenum
month
motor
mount, mounting

multimeter (use volt-ohm-
milliammeter)
multiple
multiple contact
multivibrator

ml dg
Mo
mo
mtr
mt

mult
MC
multi

*See page 2, paragraph 6.2.1
Abbreviations and Symbols



N

*nano
*nanoampere
*nanosecond
*nanovolt
*nanowatt
narrow band
national
National Bureau of Standards
National Coarse (thread)
National Electronic Manufacturers Association
National Extra Fine (thread)
National Fine
National Special (thread)
natural
natural logarithm (see
logarithm, natural)
negative
*neon
*neper
neutral, neutralization

*newton
*nickel
*nitrogen
no connection
nominal
normal
normally closed
normally open
not applicable
not available (use
unavailable)
not in production
number

n
nA
ns
nV
nW
NB
natl
NBS
NC

NEMA
NEF
NF
NS
nat

neg
Ne
Np
neut

N
Ni
N
NC
nom
norm
NC
NO
NA

nonprod
no

O

obsolete
*oersted
*ohm
on center
open circuit
operate, operating

operational amplifier
opposite
opposite hand
orange
orientation
origin
oscillator
oscilloscope
(see also cathode-ray
oscilloscope)

*ounce
*ounce-force inch
outer
output
outside diameter
outside moldline
outside radius
oval head (screw)
overall
*oxygen

obs
Oe
 Ω
OC
open
op

op amp
opp
OH
orn
orient
orig
osc
scope

oz
ozf.in
otr
out
OD
OML
OR
OH
oa
O

*See page 2, paragraph 6.2.1



P			
package	pkg	*picofarad	pF
pad	pd	*picosecond	ps
page	p	*picowatt	pW
pair	pr	piece	pc
*palladium	Pd	pilot	plt
panel	pnl	pitch	p
pan head (screw)	PH	pitch diameter	PD
paragraph	para	plastic	plstc
parallel	par	plate, plating	pl
part number	PN	plate (electron tube)	p
parting line	PL	*platinum	Pt
parts list	PL	plug-in	PI
*parts per million	P/M	plus and minus	+ & -
passive	psve	(use plus and minus to express a range which must be encompassed; for example, one might express the required rotation of a knob in each direction from a given setting as '+ & - 20° from the zero position')	
patent	pat		
peak inverse voltage	PIV		
peak to peak	P-P		
per	/		
percent	%	plus or minus	±
perforate	perf	(use plus or minus to express limits within which a value must reside; for example, one might express the actual value of a capacitor as '10μF ± 10%')	
permanent	perm		
permeability (absolute)	μ		
permeability (relative)	μ _r		
permeance	P	point	pt
permittivity (absolute)	ε	porcelain	porc
permittivity (relative)	ε _r	position	pos
perpendicular	perp	positive	pos
phase	φ	*potassium (kalium)	K
phase-locked oscillator	PLO	potential difference	E
phase modulation	PM	potentiometer	pot
phenolic	phen	*pound	lb
*phosphorus	P	*pound-force foot	lbf·ft
photograph	photo	*pound-force per square inch	lbf/in ²
pickoff	po	*pound per square inch (use pound-force per square inch)	
*pico	p		
*picoampere	pA		

*See page 2, paragraph 6.2.1

Abbreviations and Symbols



Q

power
power (in watts)
power factor
power supply
preamplifier
precision
prefabricated
preliminary
premium
prepare
pressure
previous
primary
principle
product
Product Reference Book
Product Verification Release
Production Drawing Release
projected
Prototype Release
publication
pulse-amplitude modulation
pulse duration (see also
 pulse width)
pulse per second
pulse-repetition frequency
pulse-repetition rate
pulse-time modulation
pulse width (see also pulse
 duration)
purchase
purchase order

pwr
P
PF
PS
preamp
prec
prefab
prelim
prem
prep
p
prev
pri
prin
prod
PRB
PVR
PDR
proj
PR
pub
PAM

t_p
p/s
PRF
PRR
PTM

PW
purch
PO

quadrant
quality assurance
quality control
quality factor
quantity
quarter hard

quad
QA
QC
Q
qty
1/4H |



R

rackmount
radian
radio frequency
radio-frequency interference

*radium
radius
ream
recalibration
receipt
received
receptacle
recorder
rectangular
redesign
redrawn
reduce
refer
reference
reflection coefficient
regardless of feature size
registered (trademark)
regular
regulate, regulator

reinforce
reject
relative humidity
relay
release
reliability
reluctance (in ampere/weber)
remove
repair
replace

R

rad

RF

RFI

Ra

r

rm

recal

rec

recd

recp

rec

rect

redsgn

redr

red

ref

ref

 ρ

RFS

Ⓡ

reg

reg

reinf

rej

RH

rly

rel

rel

R

rem

rep

repl

representative

reproduce

request for expenditure

require

requisition

research and development

resistance

resistance-capacitance

resistance-inductance

resistivity

resistor

response

retainer, retaining

retrace

return

reverse

revise, revision

*revolution per minute

*revolution per second

*rhodium

right

right front

right hand

right rear

risetime

rivet

Rockwell hardness

Rockwell-hardness number

Rockwell-hardness scale

root diameter

root mean square

rotator

rotor

round

round head (screw)

rep

repro

RFE

req

req

R&D

R

RC

RL

res

resp

ret

retr

ret

rev

rev

r/min

r/s

Rh

r

RF

RH

RR

 t_r

riv

RH

RHN

RHS

RD

RMS

rot

rot

rd

RH

*See page 2, paragraph 6.2.1
Abbreviations and Symbols



S

sample	smpi	*silicon	Si
sandblast	sdbi	silicon-controlled rectifier	SCR
schedule	sked	*silver (argentum)	Ag
schematic	schem	silver (color)	sil
screw	scr		
seamless	smls	similar	sim
*second (plane angle)	..."	single pole	SP
*second (time)	s	single sideband	SSB
secondary	sec	single throw	ST
section	sect	sink	sk
segment	seg	sleeve	slv
select, selector	sel	slope	sl
		small	sm
*selenium	Se	socket	soc
semiconductor device	SCD	socket head (screw)	SH
sensitivity	sens	*sodium (natrium)	Na
separate	sep	solenoid	sol
sequence	seq	spacer	spr
serial	ser	special	spl
serial number	SN	specific	sp
series	ser	specific gravity	sp gr
set screw	SS	specification	spec
setting	set	spectrum analyzer	SA
sheet	sh	spherical	spher
shield	shld	spot face	SF
shipping	shpg	spring	spg
shop order	SO	square	sq
short circuit	short	*square centimeter	cm ²
shoulder	shld	*square foot	ft ²
shutter	shtr	*square inch	in ²
*siemens	S	stability, stabilize	stab
signal	sig		
signal-to-noise ratio	S/N		

*See page 2, paragraph 6.2.1



T

stabilized local oscillator	STALO	tabulate	tab
stainless steel	SST	*tantalum	Ta
standard, standardization	std	tapping	tap
standard amplitude calibrator	SAC	target	tgt
		technical	tech
Standards Manual	SM	teeth per inch	t/in
standing-wave ratio	SWR	telephone conversation	telcon
steel	stl	television	TV
*steradian (solid angle)	sr	temper	temp
storage	stor	temperature	T
storage factor (use figure of merit)		temperature characteristic	TC
storage time	t _s	temperature coefficient	T _c
straight	str	template	temp
subject	subj	temporary	temp
substitute	sub	tentative	tent
*sulfur	S	*tera	T
summary	sum	terminal	term
super-high frequency	SHF	terminal board	term bd
supplement	suppl	termination	term
supply	sup	*tesla	T
support	spt	test unit	TU
susceptance	B	tester	test
sweep	swp	thermal	therm
switch	sw	thick	thk
symbol	sym	thread	thd
symmetry, symmetrical	sym	threads per inch	t/in
synchronize	sync	time	t
system	sys	time base	TB
		time constant	TC
		time domain reflectometry	TDR
		timer	tmr
		timing	tmg
		*tin (stannum)	Sn
		*titanium	Ti

*See page 2, paragraph 6.2.1

Abbreviations and Symbols



U

toggle	tgl	ultimate	ult
tolerance	tol	ultra-high frequency	UHF
tooling drawing release	TDR	unavailable	unav
total indicator reading	TIR	unblanking	unblk
transconductance	g_m	unfinished	unfin
transformer	xfmr	Unified Coarse (thread)	UNC
transistor	xstr	Unified Extra Fine (thread)	UNEF
transverse	transv	Unified Fine (thread)	UNF
transverse electric	TE	Unified Special (thread)	UNS
transverse electromagnetic	TEM	United States of America	
traveling-wave tube	TWT	Standards Institute	USASI
triaxial	triax	(formerly American Standards	
trigger	trig	Association)	
triple pole	3P	universal	univ
triple throw	3T	universal joint	U-joint
tuned-plate tuned-grid	TPTG	unless otherwise specified	UOS
tuned radio frequency	TRF	unmarked	unmk
*tungsten (wolframium)	W	update	updt
tunnel	tunl	unregulated	unreg
tunnel diode	TD	upper	up
typical	typ		

*See page 2, paragraph 6.2.1



V

vacuum
vacuum-tube voltmeter
*var (volt-ampere, reactive)
variable
variable-frequency oscillator
vernier
vertical
vertical amplifier
vertical centerline
vertical-interval testing
very-high frequency
very-low frequency
Vickers hardness
video
video frequency
viewing
violet
*volt
volt-ohm-milliammeter
voltage
voltage coefficient
voltage regulator
voltage standing-wave ratio
*voltampere
volts per division
volume

vac
VTVM
var
var
VFO
ver
vert
VA
VCL
VIT
VHF
VLF
VH
vid
VDF
view
vio
V
VOM
V
V_c
VR
VSWR
VA
V/div
vol

W

washer
*watt
*watthour
wave
waveguide
*Weber
week
weight
white
wide, width
wide band

wirewound
wired
with
without
wrinkle

wash

W

Wh

wv

wg

Wb

wk

wt

wht

w

WB

ww

wrd

w

wo

wrnkl

Y

*yard
year
yellow

yd

yr

yel

Z

*zinc

Zn

*See page 2, paragraph 6.2.1

Abbreviations and Symbols



1/4H	quarter hard		
1/2H	half hard	μ	permeability (absolute)
3P	triple pole	μ_r	permeability (relative)
3T	triple throw	ϕ	phase
4P	four pole	+ & -	plus and minus
&	and		(see page 16)
Å	*angstrom	$\pm$	plus or minus
ω	angular velocity		(see page 16)
°C	*degree Celsius (centigrade)	ρ	reflection coefficient
°F	*degree Fahrenheit	ρ	resistivity
°K	*degree Kelvin (absolute)	>	greater than
ϵ	permittivity (absolute)	$\geq$	equal to or greater than
ϵ_r	permittivity (relative)	<	less than
$\approx$ or $\simeq$	approximately equal to	$\leq$	equal to or less than
=	equal to		
∞	infinity		
μ	*micro		
$\mu\mu$	micro micro (use ρ)		
μA	*microampere		
μF	*microfarad		
μH	*microhenry		
μin	*microinch		
μmho	*micromho		
μs	*microsecond		
μS	*microsiemens		
μV	*microvolt		
μW	*microwatt		
Ω	*ohm		
/	per		
%	percent		
...°	*degree (plane angle)		
...'	*minute (plane angle)		
...''	*second (plane angle)		

*See page 2, paragraph 6.2.1