

## Letter Symbols - Diodes

## General

## LETTER SYMBOLS

The letter symbols for diodes detailed in this section are based on IEC publication number 747.

## Basic letters

In the representation of currents, voltages and powers, upper-case letter symbols are used to indicate all values except instantaneous values that vary with time; these are represented by lower-case letters.

The following is a list of basic letter symbols used with semiconductor diodes:

C	capacitance
E, e	energy
f	frequency
I, i	current
L	inductance
P, p	power
Q	charge
R, r	resistance
S	temperature coefficient
T	temperature
t	time
V, v	voltage
Z	impedance.

## Subscripts

Upper-case subscripts are used for the indication of:

- Continuous (DC) values (without signal), e.g.  $I_F$
- Instantaneous total values, e.g.  $i_{RR}$
- Average total values, e.g.  $I_{F(AV)}$
- Peak total values, e.g.  $V_{RSM}$
- Root-mean-square total values, e.g.  $I_{F(RMS)}$ .

Lower-case subscripts are used for the indication of values applying to the varying component alone:

- Instantaneous values, e.g.  $t_{rr}$
- Root-mean-square values, e.g.  $I_{f(rms)}$
- Peak values, e.g.  $V_{fm}$
- Average values, e.g.  $I_{f(av)}$ .

If more than one subscript is used, the subscript for which both styles exist are either all upper-case or all lower-case.

The following is a list of subscripts used with basic letter symbols for semiconductor diodes:

amb	ambient
(AV), (av)	average value
(BR)	breakdown
(CL)	clamping
d	diode
diff	differential
F, f	forward, fall
I, i	input
j	junction
j-a	junction to ambient
j-tp	junction to tie-point
K	knee
L	load
M, m	peak or crest value
max	maximum
min	minimum
nom	nominal
O, o	output
on	turn-on
P, p	pulse
R, r	as first subscript: reverse, rise. as second subscript: repetitive, recovery.
ref	reference
(RMS), (rms)	root-mean-square value
S, s	As first subscript: storage, series, switching. As second subscript: surge (non-repetitive).
stg	storage
th	thermal
tot	total
tp	tie-point
W	working
Z, z	regulator, working (zener).