TRANSMITTING TUBES - SYMBOLS

Type designation

Designation of tubes designed in last period consists of following members:

- one or two letters indicating number of electrods / T- triode, Q - tetrode, P - penthode, two egual letters indicate double tube/
- Group of figurs designating aproximately dissipation plate power in kilowatts
- Letter "P" or "W" indicating air cooling or water cooling respectively /lack of this member indicats natural cooling/
- Two figures, first of which idicates main application of the tube and second indicating consecutive constructional version

Meaning of first figure is following:

1 - tubes for broadcasting and radiocommunication transmitting devices
2 - tubes for radiothermics devices /industrial tubes/
3 - tubes for TV transmitting devices
4 - tubes for SSB devices
5 - modulation tubes
6 - pulse tubes

Designation of electrods

A - anode
K - kathode
S - grid
S_1 - control grid
S_2 - screan grid
S_3 - suppressor grid
G - filament

Designation of phisical quantity

B	frequency bandwidth
C_{as}, C_{asl}	anode-control grid cappacitance
$C_{a/s/}$, $C_{a/sl/}$	output cappacitance
$C_{s/a/}$, $C_{sl/a/}$	input cappacitance
D_{s2}	penetration factor of screan grid
f	frequency
f_i	repetition frequency
h	height over sea level
i_a	plate current, instantenous value
i_{am}	plate current, peak value
I_{ant}	ariel current, mean value
I_{a0}	plate current, d.c. component
i_k	cathode current, instantenous value
i_{km}	cathode current, peak value

DZL

Doświadczalne Zakłady Lampowe LAMINA
Piaseczno k.Warszawy,ul.Puławska 34 POLAND
Concern UNITRA Warszawa,ul.Krucza 36
Exporter ELEKTRIM Warszawa,ul.Czackiego 15/17

I_{k0}	cathode current, d.c. component
I_a	saturation current /emission current/
i_s, i_{s1}	control grid current, instantaneous value
i_{sm}, i_{s1m}	control grid current, peak value
I_{s0}, I_{s10}	control grid current, d.c. component
i_{s2}	screen grid current, instantaneous value
i_{s2m}	screen grid current, peak value
I_{s2}, I_{s20}	screen grid current, d.c. component
I_z	heater current, effective value
I_{zmax}	heater current, peak value at starting moment
k	harmonic distortion coefficient
K_a	gain factor
K_{s2}	coefficient of screen grid voltage influence
k_{ss}	feedback coefficient
m	modulation factor
p	pressure
P_a	plate dissipation power
P_{mod}	power delivered from modulator
P_0	d.c. power supplied to plate circuit
P_s, P_{s1}	control grid dissipation power
P_{s2}	screen grid dissipation power
P_t	air pressing power
P_w	static water pressure
P_{we}	input power
P_{wv}	output power
P_{wym}	output power, peak value /relating to envelope peaks/
q	volume of cooling agent /air or water/ flowing at time unit
R_a	load resistance in plate circuit
R_{aa}	load resistance plate-cathode /in push-pull circuit/
R_s, R_{s1}	resistance in control grid current
S_a	transconductance /of plate current/
t	switching on time at interrupted work
T	time of one cycle of interrupted work
t_b	tube envelope temperature
t_c	base temperature
t_k	terminal temperature
t_{ka}	plate terminal temperature
t_t	base disk temperature
t_{we}	input air, or input water temperature
t_{wv}	output air, or output water temperature
t_z	junction temperature

u_a	plate voltage, instantaneous value
U_a	plate voltage, effective value
u_{am}	plate voltage, peak value
U_{a0}	plate voltage, D.C. component
$U_{k/g}$	cathode-heater voltage
u_s, u_{s1}	control grid voltage, instantaneous value
U_s	control grid voltage, effective value
u_{s1m}	control grid voltage, peak value
U_{sm}, U_{sm1}	control grid voltage, amplitude of simusoidal component
U_{sm}'	control grid voltage, amplitude of simusoidal component for H.F.
U_{sm}''	control grid voltage, amplitude of simusoidal component for audio frequency
U_{s0}, U_{s1C}	control grid bias
U_{ssm}, U_{s1s1m}	voltage between control grids / push-pull circuit/, amplitude of simusoidal component
U_{ssm}'	voltage between control grids, amplitude of simusoidal coponents, for H.F.
U_{ssm}''	voltage between control grids, amplitude of simusoidal components for audio frequency
u_{s2}	screen grid, instantaneous value
u_{s2m}	screen grid, peak value.
U_{s2}, U_{s20}	screen grid, D.C. value
u_{s3}	suppressor grid, instantaneous value
U_{s3m}	suppressor grid, amplitude of simusoidal component
U_{s3}, U_{s30}	suppressor grid, D.C. component
U_{tr}	transformer voltage, effective value
U_f	heater voltage, effective value
d_1	duty factor
Δp	pressure drop at radiator
η_a	plate efficiency
τ_1	pulse width

Abbridgements and indexes

b - peak white level
cz - black level
max - maximal permissible
m.cs. - audio frequency
w.cs. - H.F
syn - sync.level

Notice: bracket by equivalent symbol means that it is not accurat equivalent.