4-VOLT A.C. VALVES WITH PIN BASES (POWER STAGES)

Type Number	Valve type	Maximum dimensions [1] mm	Base (Connection reference in brackets)	Application (see p. 2)	Filament data: Heating	Filament data: Voltage Volts	Filament data: Current Amps.	Anode voltage Va Volts	Anode current Ia mA	Neg. grid bias Vg_1 Volts	Screen-grid voltage Vg_2 Volts	Screen-grid current Ig_2 mA	Voltage on grids 3 (and 5) $Vg_3(_5)$ Volts	Voltage on grid 4 Vg_4 Volts	Mutual conduct. S mA/V	Amplification factor μ	Internal resistance Ri Ohms	External anode resist. or optimum matching imped. Ra Ohm	Output at 10 % distortion Wo Watts	Grid A.C. voltage at the indicated output Vi $V_{R.M.S.}$	Max. anode dissipation Wa_{max} Watts	Grid anode capacity Cag_1 μμF	Type Number
E453	Pentode	105×51	B35 (8)	12	indir.	4,0	1,1	250	24	—15	250	—	—	—	2,5	175	70.000	15.000	2,8	8	6	—	**E453**
E463	Pentode	119×55	B35 (8)	12	indir.	4,0	1,35	250	36	—22	250	—	—	—	2,7	100	37.000	8.000	4,1	12,3	9	—	**E463**
B409	Triode	91×46	A32 (1)	12	dir.	4,0	0,15	250	12	—18	—	—	—	—	1,8	9	5.000	12.000	0,65 [2]	12	3	—	**B409**
B443	Pentode	92×51	O35 (19)	12	dir.	4,0	0,15	250	12	—19	150	—	—	—	1,3	60	45.000	20.000	1,35	12,1	3	—	**B443**
B443S	Pentode	92×51	O35 (19)	12	dir.	4,0	0,15	250	12	—12	80	—	—	—	1,6	100	60.000	22.000	1,12	6,8	3	—	**B443S**
C443	Pentode	92×51	O35 (19)	12	dir.	4,0	0,25	300	20	—25	200	—	—	—	1,7	60	35.000	15.000	2,8	16	6	—	**C443**
C443N	Pentode	89×51	O35 (19)	12	dir.	4,0	0,25	300	20	—42	200	—	—	—	1 5	37	25.000	15.000	3,0	20	6	—	**C443N**
E443H	Pentode	123×55	O35 (19)	12	dir.	4,0	1,1	250	36	—15	250	—	—	—	2,8	120	43.000	7.000	3.1	9,7	9	—	**E443H**

[1]) Without pins. [2]) At 5 % distortion.

180-MA D.C. VALVES

Type Number	Valve type	Maximum dimensions [1] mm	Base (Connection reference in brackets)	Application (see p. 2)	Filament data: Heating	Filament data: Voltage Volts	Filament data: Current Amps.	Anode voltage Va Volts	Anode current Ia mA	Neg. grid bias Vg_1 Volts	Screen-grid voltage Vg_2 Volts	Screen-grid current Ig_2 mA	Voltage on grids 3 (and 5) $Vg_3(_5)$ Volts	Voltage on grid 4 Vg_4 Volts	Mutual conduct. S mA/V	Amplification factor μ	Internal resistance Ri Ohms	External anode resist. or optimum matching imped. Ra Ohm	Output at 10 % distortion Wo Watts	Grid A.C. voltage at the indicated output Vi $V_{R.M.S.}$	Max. anode dissipation Wa_{max} Watts	Grid anode capacity Cag_1 μμF	Type Number
B2046	H.F. Pentode	138×51	O35 (23)	1, 2, 5, 7. 8, 11	indir.	20	0,180	200	3.0	—2,0	100	1,1	—	—	3,5	2,2	5000	$2{,}2.10^6$	—	—	—	<0,006	**B2046**
B2047	Variable-Mu Pentode	138×51	O35 (23)	1, 2, 5	indir.	20	0,180	200	4,0	—2,0 —50	100	1,8	—	—	3,0	2.0 <0,002	2200	$1{,}1.10^6$ $>10^7$	—	—	—	<0,006	**B2047**
B2048	Hexode (oscillator modulator	130×50	C35 (11)	4	indir.	20	0,180	200	3,0	—1,5	120	8,5 [2])	200	—4 [3])	—	0,58 [4])	—	$>0{,}15.10^6$	—	—	—	—	**B2048**
B2049	Variable-Mu Hexode	130×50	C35 (11)	1, 2	indir.	20	0,180	200	3	—1,5 —8	80	—	—1,5 —8	80	3	1,8 <0,002	—	$0{,}45.10^6$ $>50.10^6$	—	—	—	<0,002	**B2049**
B2052T	Tetrode	127×51	O35 (22)	1, 2, 5, 7, 8, 11	indir.	20	0,180	200	3,0	—2,0	100	0,2	—	—	3,0	2,0	900	$0{,}45.10^6$	—	—	—	0,003	**B2052T**
B2045	Variable-Mu Tetrode	120×51	O35 (22)	1, 2, 5	indir.	20	0,180	200	4,0 0.01	—2,0 —40	60	0,9	—	—	1,2	1,0 0.005	400	$0{,}4.10^6$ $>10^7$	—	—	—	0,004	**B2045**
B2044	Binode (Diode-Tetrode)	130×51	B35 (7)	9	indir.	20	0,180	200	0.29 0.76	—3,2 —4,0	40 60	—	—	—	2,8	—	700 600	$2{,}4.10^6$ $1{,}2.10^6$	$0{,}32.10^6$ $0.1.10^6$	—	—	0,003	**B2044**
B2044S	Binode (Diode-Triode)	108×46	O35 (20)	9	indir.	20	0,180	200	6,0	—3,0	—	—	—	—	2,0	1,8	30	16.000	—	—	—	—	**B2044S**
B2038	Triode	105×51	O35 (17)	3, 6, 7, 10, 11	indir.	20	0,180	200	6,0	—3,0	—	—	—	—	3,5	2,3	33	14.000	—	—	—	—	**B2038**
B2099	High-Mu Triode	101×46	O35 (17)	11	indir.	20	0,180	200	0.08 0,2	—1,6 —1,6	—	—	—	—	3,0	—	99	330.000 100.000	$0{,}32.10^6$ 1.10^6	—	—	1,5	**B2099**
B2006	Power Triode	105×51	O35 (16)	12	indir.	20	0,180	200	15	—18	—	—	—	—	2,5	1,6	6	4.000	16.000	0,21 [5])	5	—	**B2006**
B2043	Power Pentode	105×51	B35 (8)	12	indir.	20	0,180	200	20	—18	200	8	—	—	2,5	1,7	70	40.000	10.000	1,7	5	—	**B2043**

[1]) Without pins. [2]) Current of the third grid. [3]) $V_{osc} = 6{\cdot}3\ V_{R.M.S.}$ [4]) Conversion conductance at $V_{osc} = 6{\cdot}3\ V_{R.M.S.}$ [5]) At 5 % distortion.