

P - 20006 - 14-1-1959

The 7217 is a half-wave mercury vapour diode, suitable for use as a high voltage rectifier for peak inverse voltages up to 20000 volts.

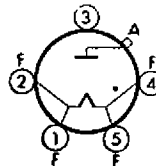
GENERAL DATA

Mechanical:

Operating position	Vertical, base down
Base	Special Metal-Shell Super Jumbo-5 pin with Bayonet
Cap	Skirted Medium (JETEC C1-14)
Maximum Overall Length	290 millimeters
Maximum Seated Length	271 millimeters
Maximum Diameter	74 millimeters

Pin connections (bottom view):

Pin 1	Filament, Cathode Shield
Pin 2	Filament, Cathode Shield
Pin 3	No Connection
Pin 4	Filament
Pin 5	Filament



Electrical:

Filament	Coated	
Filament Voltage	5 ± 5%	a. c. volts
Filament Current	10	amperes
Heating Time at rated voltage (1)	60	sec
Peak Tube Voltage Drop	10	volts

MAXIMUM RATINGS

(Absolute values)

Half Wave Rectifier

Operating Condensed Mercury Temperature:

min	25	25	25	°C
max	40	50	60	°C
Peak Inverse Anode Voltage	20000	15000	10000	volts max
Anode Current:				
peak	7	7	7	amperes max
average (2)	1,75	1,75	1,75	amperes max
fault, for duration of 0,1 second maximum	70	70	70	amperes max
Maximum Operating Frequency	150	150	150	c/s

OPERATING CONDITIONS

Circuit	Max trans. secondary	Approx DC output to filter	Max DC output	Max DC output to filter
	volts r. m. s.	volts	amperes	kilovolts
Fig. 1				
Half-Wave	14200 (3)	6400	1,75	11
Single-Phase	10700 (4)	4800	1,75	8,4
In-Phase Operation	7100 (5)	3200	1,75	5,6
Fig. 2				
Full-Wave	7100 (3)	6400	3,5	22,5
Single-Phase	5300 (4)	4800	3,5	17
In-Phase Operation	3550 (5)	3200	3,5	11
Fig. 3				
Series Single-Phase	14200 (3)	12800	3,5	45
In-Phase Operation	10700 (4)	9600	3,5	33
	7100 (5)	6400	3,5	22,5
Fig. 4				
Half-Wave	8200 (3)	9500	5,25	50
Three-Phase	6100 (4)	7000	5,25	37
In-Phase Operation	4100 (5)	4700	5,25	25
Fig. 5				
Parallel	8200 (3)	9500	10,5	100
Three-Phase	6100 (4)	7000	10,5	73
Quadrature Operation	4100 (5)	4700	10,5	50
Fig. 6				
Series	8200 (3)	19000	5,25	100
Three-Phase	6100 (4)	14400	5,25	76
Quadrature Operation	4100 (5)	9500	5,25	50
Fig. 7				
Half-Wave	7100 (3)	9000	7	63
Four Phase	5300 (4)	6700	7	47
Quadrature Operation	3550 (5)	4500	7	32
Fig. 8				
Half-Wave	7100 (3)	9500	10,5	100
Six-Phase	5300 (4)	7000	10,5	73
Quadrature Operation	3550 (5)	4700	10,5	50

(1) - At + 22 °C min.

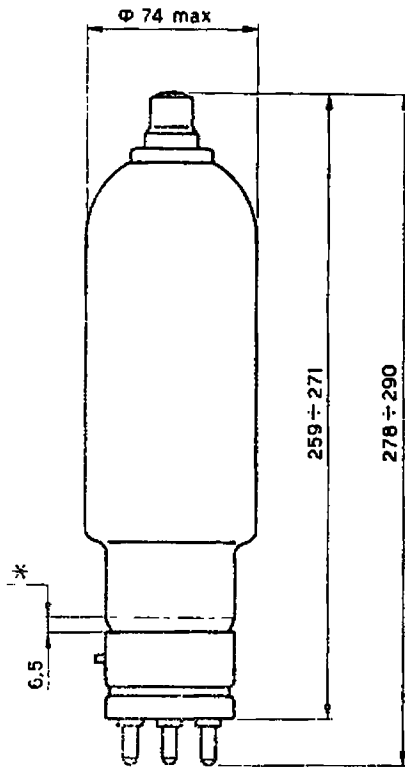
(2) - Averaged over any interval of 30 seconds maximum.

(3) - Condensed mercury temperature of 25 to 40 °C.

(4) - Condensed mercury temperature of 25 to 50 °C.

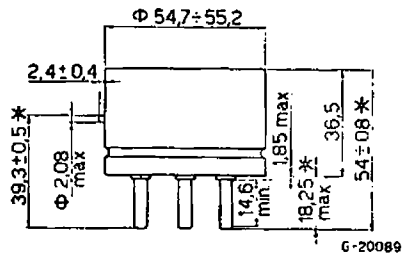
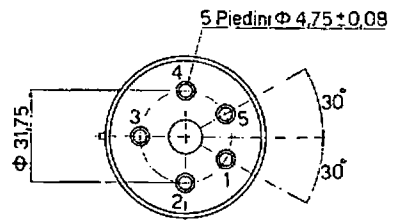
(5) - Condensed mercury temperature of 25 to 60 °C.

OUTLINE



* Zone where condensed-mercury temperature should be measured.

G-20213



G-20089

Dimensions in mm

RECTIFIER CIRCUITS

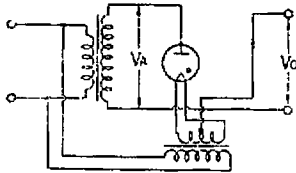


FIG. 1

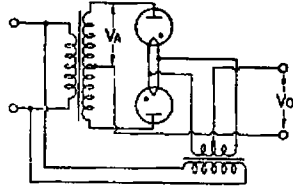


FIG. 2

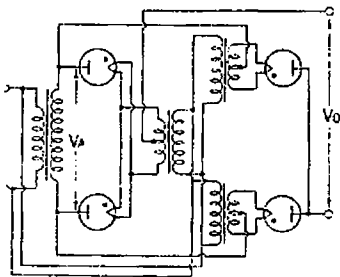


FIG. 3

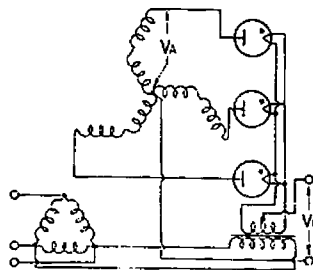


FIG. 4

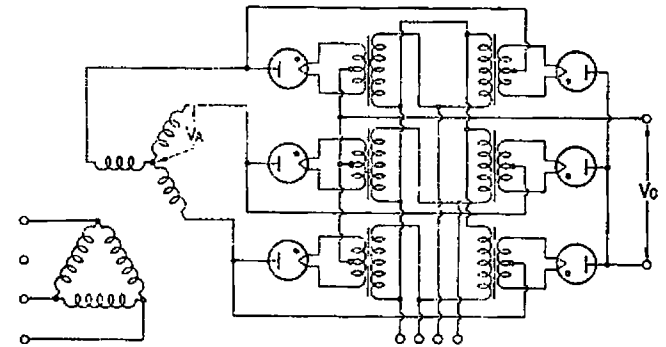


FIG. 6

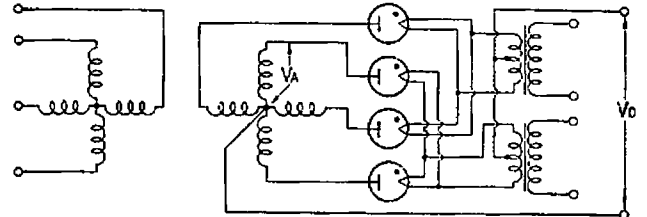


FIG. 7

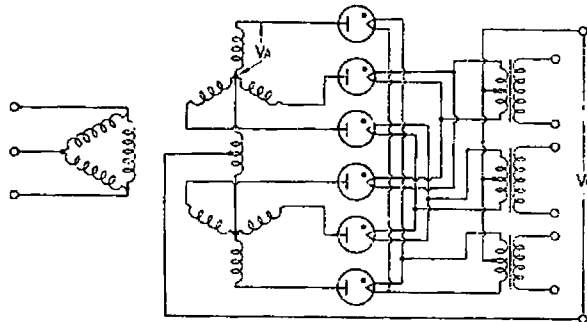


FIG. 5

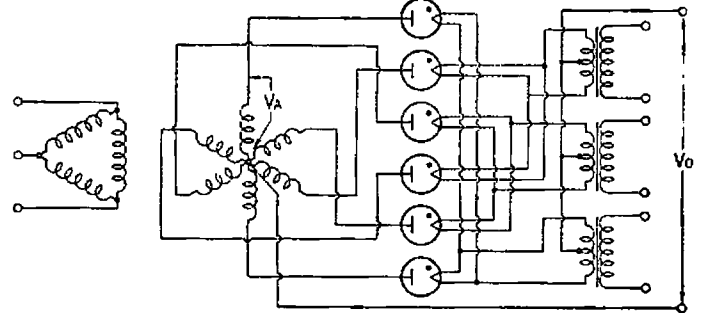


FIG. 8

G-20224

V_A = Plate r. m. s. voltage.
V_O = DC voltage output to filter.

G-20225