



Half-Wave Gas-Filled Rectifier

Code: 3B28 (CVI835) ←

The 3B28 is a xenon-filled, half-wave rectifier designed for operation in high voltage circuits where extremes of ambient temperature are encountered.

It is well suited for mobile applications since its construction permits the valve to be mounted in any position and heaters, fans and thermostats are not required for the close control of bulb temperature.

CATHODE

Oxide-coated filament		
Filament voltage	2.5	V
Nominal current	5.0	A
Minimum heating time	10	sec

MECHANICAL DATA

Maximum overall length	162	mm
Maximum bulb diameter	52.6	mm
Base	American medium 4-pin bayonet	
Top cap	CT3 with insulating collar	
Mounting position	Unrestricted←	
Net weight	120	g←

MAXIMUM RATINGS

Maximum peak inverse voltage	5	10	kV
Maximum peak anode current	2	1	A
Maximum average anode current	0.5	0.25	A
Maximum frequency for above ratings	500	150	c/s
Ambient temperature range	—55 to +75	—55 to +75	°C
Maximum voltage drop	14	14	V←

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TYPICAL OPERATING CONDITIONS

Circuit	No. of Valves	Maximum A.C. Input Voltage (V _{r.m.s.})	Maximum D.C. Output Voltage (V)	Maximum D.C. Output Current (A)
Single Phase Full Wave Circuit No. 1	2	3535	3180	0.5
Single Phase Full Wave Bridge Circuit No. 2	4	7070	6360	0.5
Three Phase Half Wave Circuit No. 3	3	4080	4780	0.75
Three Phase Double Y Parallel Circuit No. 4	6	4080	4780	1.5
Three Phase Full Wave Circuit No. 5	6	4080	9570	0.75

The above tables suitable circuits for this rectifier, and shows their safe maximum input and output conditions. The values are based on sine wave input and the use of a suitable choke input filter.

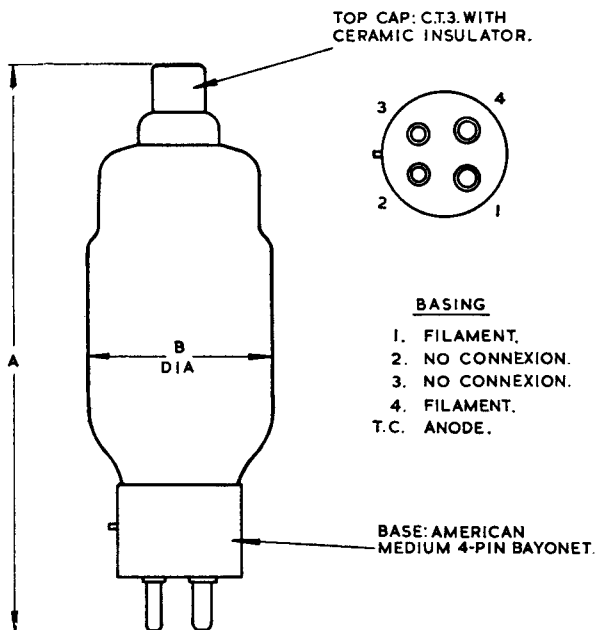
This rectifier being directly heated, it is recommended that the output circuit be taken from the mid-point of the filament supply transformer secondary winding.

For details of the circuits referred to, see sheet K—8 in the introduction to this handbook.



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DIM.	MILLIMETRES	INCHES
A	149·10 MIN.	5·870 MIN.
	162·05 MAX.	6·380 MAX.
B	52·58 MAX.	2·070 MAX.

NOTE: BASIC FIGURES ARE INCHES.