



ELECTRONIC TUBE REFERENCE

4B31

Rectifier - Half Wave electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

RECTIFIER

Rugged high-vacuum power diode for high-voltage clipping and rectifier service. Rated for approximately 16 kV peak inverse voltage and 60 mA DC output, with very high short-duration peak-current capability.

GENERAL CHARACTERISTICS

BASE DESIGNATION	SEE DATA	BASE PINS	4
NOMINAL HEATER	5 V / 4.75 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Rectifier	
PEAK INVERSE VOLTAGE	16000 V
NOMINAL OUTPUT CURRENT	60 mA
PEAK FORWARD CURRENT	16 A
FORWARD VOLTAGE DROP	150 V
WARM-UP TIME	120 s
<i>Promoted only from clearly identified printed ratings/characteristics; additional published operating points retained in TUBE_SECTION_PARAMETER.</i>	

Rugged high-vacuum power diode for clipper or rectifier service.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1938 Raytheon

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1938 RAYTHEON

Section 1 · Rectifier

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater or filament voltage	5 V	Published nominal value
Heater or filament current	4.75 A	Published nominal value

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak inverse voltage	16000 V	Published rating
Average or DC output current	15 mA	Published rating
Peak forward current	470 mA	Published rating



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

195X Raytheon Special Purpose Tubes

Published test conditions and operating points. Values on this page are preserved as reported by this source.

195X RAYTHEON SPECIAL PURPOSE TUBES

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak inverse voltage maximum	16000 V	ClipperDiode
Peak plate current maximum	16 A	ClipperDiode
DC output current maximum	60 mA	ClipperDiode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Average tube voltage drop	150 V	ClipperDiode