



TECHNICAL
INFORMATION
SERVICE

Technical Information

583

HIGH VACUUM CLIPPER DIODE RECTIFIER

The 583 is a heater-cathode, high-vacuum clipper diode or rectifier designed for use in high voltage application. It is mechanically rugged and in addition uses a hard glass nonex envelope. The plates are gold plated and zirconium coated for better operation at high voltages. The cathode is heliarc welded making the internal connection more rugged and giving better contact. The self supporting anodes eliminate use of mica spacers allowing high temperature during exhaust thereby obtaining less gas and longer life.

MECHANICAL RATINGS:

Maximum Impact Acceleration (Shock-Test).....	375 G
Maximum Vibrational Acceleration (96 Hour Fatigue Test).....	2.5 G
Maximum Bulb Temperature	
Rectifier.....	185 °C
Clipper.....	225 °C
Altitude.....	36,000 ft.

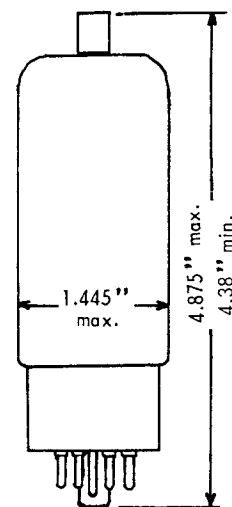
ELECTRICAL DATA

<u>Ratings and Normal Operation</u>	<u>MIL-E-1 Symbol</u>	<u>Test Limit or Absolute Minimum</u>	<u>Normal Test Conditions</u>	<u>Normal Operation</u>	<u>Test Limit or Absolute Maximum</u>	<u>MIL-E-1 Units</u>
RATINGS						
Heater Voltage	Ef:	2.25	2.5	2.5	2.75	Vac
Peak Plate Inverse Voltage						
Rectifier	e _{px} :	---	---	---	17.0	kv
Clipper	e _{px} :	---	---	---	15.0	kv
Peak Plate Current						
Rectifier	i _b :	---	---	---	0.25	a
Clipper	i _b :	---	---	---	8.0	a
Plate Current						
Clipper	i _p :	---	---	---	240	mAac
Plate Current (DC Comp.)						
Rectifier	i _b :	---	---	---	65	mA _{dc}
Plate Dissipation						
Clipper	P _p :	---	---	---	18	W
Cathode-Conditioning Time						
Rectifier	t _k :	120	---	---	---	sec.
TESTS						
Heater Current	i _f :	4.4	---	4.9	5.4	Aac
Peak Emission	i _s :	8.0	---	---	---	a
e _b =4000 v						
Plate Current						
E _b =130 V _{dc}		100	---	---	---	mA _{dc}

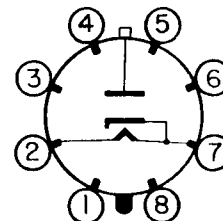
MECHANICAL DATA

ENVELOPET-11
 BASE Intermediate Shell Octal
 8 Pin, B8-6 Phenolic
 CAP Small C1-1
 MOUNTING POSITION .. Vertical

PHYSICAL DIMENSIONS



BASING



BOTTOM VIEW

TERMINAL CONNECTIONS:

- Pin 1 NC
- Pin 2 Heater
- Pin 3 NC
- Pin 4 NC
- Pin 5 NC
- Pin 6 NC
- Pin 7 Heater and Cathode
- Pin 8 NC
- Cap Plate



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PEAK EMISSION CHARACTERISTICS

