

Sealed steel-envelope ignitron for low-inductance capacitor-discharge circuits, designed to switch extremely high pulse currents at voltages up to about 20 kV.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	— / —	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 IgnitronPowerSwitch
No fixed ratings recorded.
Source-derived physical/electrical section.

Westinghouse 7740 June 1, 1960 IGNITRON FOR CAPACITOR DISCHARGE SERVICE TYPE 7740 The 7740 is a sealed, steel envelope tube with Shoop sprayed area where contact is made to the cathode. The anode connection is o threaded stud. The combination is suitable for connection in low inductance, high current cirevits as used in high current capacitor discharge circuits operating up to 20000 volts. In this service the tube will discharge up to 35000 amperes. GENERAL MAXIMUM RATINGS FOR CAPACITOR DISCHARGE Number of Electrades Paaok Anode Voltage (Note 2) Inverse . . . u v i e e e 20080 max, Volts Anodes . . i i e e e e e e e 1 F d (Note 3) 20000 Vol Cathodas . . o v i i t s e e s e e 1 orwar Ore Sl max. els [T =Y 1 Ancde Current lanitor Firing Circoit Peak 35000 max, Ampere trin ir 1 g r 9 o Coulombs Per Discharge 18.6 max. Amp. Sec. Capacitor, v v v v i e e e 0.5 i Repitition Rate 2 max, Per Minute Capacitor Yoltage

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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

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Section 1 · IgnitronPowerSwitch

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
cirevits as used in high current capacitor discharge circuits operating up to	20000	cirevits as used in high current capacitor discharge circuits operating up to 20000 volts. In this service the tube
OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
will discharge up to	35000	will discharge up to 35000 amperes.
Number of Electrads Paaok Anode Voltage (Note	2	Number of Electrads Paaok Anode Voltage (Note 2)
Inverse . . . u v i e e e	20080	Inverse . . . u v i e e e 20080 max, Volts
lanitor Firing Circoit Peak	35000	lanitor Firing Circoit Peak 35000 max, Ampere
g r	18.6	g r 9 o Coulombs Per Discharge 18.6 max. Amp. Sec.
Capacitor Yoltage	5000	Capacitor Yoltage 2.5 Kilovolts Rise Time v, 5000 max, Amps/usec
Series Resistor . . v . v v v v i i v v i t e	0.6	Series Resistor . . v . v v v v i i v v i t e 10 Ohms Average Current. . . . v v v e v i e 0.6 max, Ampera
Mopimum Tube .': ' Ap'erlo;	6	Mopimum Tube .': ' Ap'erlo; 6.0 °C': anode. During operation the anode must always be at
& _-	140	& _-1 {iétz, z into metal block heated ta 140°C for six to eight hours.
3 -20 THREAD NC ;;5'; -] 2/;' * 3" method to 25°C or less.	25	3 -20 THREAD NC ;;5'; -] 2/;' * 3" method to 25°C or less.
fy/fi/	3	fy/fi/ 1;;; MIN, Mote 3: Forward voltage (Hold-off voltage) is the voltage to which

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
duction of anode voltage to	90	duction of anode voltage to 90% of the forward voltage.
0 10° 20° 3¢° 40° 50°	50	0 10° 20° 3¢° 40° 50°
Anode Fall Time is the time for anode voltage to fall from	10	Anode Fall Time is the time for anode voltage to fall from 90% to 10% of the for-
Jitter is the variation in time for anode voltage to fall to	50	Jitter is the variation in time for anode voltage to fall to 50% of the forward