

CROWBAR THYRATRON

DESCRIPTION:

The type KU-471 is a ceramic hydrogen thyatron designed for Crowbar service. This tube is equipped with a hydrogen reservoir for maximum dependability.

ELECTRICAL DATA, GENERAL:

	<u>Nom.</u>	<u>Min.</u>	<u>Max.</u>	
Heater Voltage	6.3	5.8	6.8	Volts AC
Heater Current (at 6.3 volts)	5.5	3.5	7.0	Amperes
Reservoir Voltage (Note 1)		2.5	6.3	Volts
Reservoir Current		1.0	2.0	Amperes
Minimum Heating Time			3	Minutes

MECHANICAL DATA, GENERAL:

Mounting Position				Any
Base				See Outline
Cooling (Note 2)				
Net Weight			0.3	Pounds
Dimensions				Per Outline

RATINGS:

Max. Peak Anode Voltage, Forward, Transient (Note 3)			20.0	Kilovolts
Max. Peak Anode Voltage, Forward, Operating			16.0	Kilovolts
Max. Peak Anode Voltage, Inverse			16.0	Kilovolts
Min. Anode Supply Voltage			0.5	Kilovolts DC
Max. Peak Anode Current (Note 4)			250	Amperes
Averaging Time			10	Seconds
Max. Discharge Time (Note 4)			0.1	Seconds
Peak Trigger Voltage (Note 5)				
Max. Anode Delay Time			1.0	Microseconds
Ambient Temperature			-55° to + 100°	C

Note 1:

Adjust reservoir voltage to value indicated on tube within $\pm 5\%$.

Note 2:

No cooling required.

Note 3:

The maximum peak forward transient anode voltage rating applies to a transient voltage condition wherein the duration of the transient does not exceed two seconds.

Note 4:

The allowable time of discharge varies with the current as shown:

Rectifier Short Circuit Period	1.5 - 100 ms	5 A
" " " "	1.5 - 50 ms	10 A
" " " "	1.5 - 30 ms	20 A
Filter Discharge	" 0 - 1.5 ms	250 A

Time will be measured from the initiation of the discharge.

Note 5:

The driver pulse measured at the tube socket with the thyatron grid disconnected shall be: $e_{gy} = 200$ Volts minimum; $t_p = 2.0$ Microseconds minimum; impedance of driver circuit 50 - 500 Ohms.

KU-471

