



ELECTRONIC TUBE REFERENCE

NL714

Specialized - Thyatron electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

THYRATRON

Quick-heating industrial gas-and-mercury thyatron designed especially for timing control and regulated-rectifier applications across wide temperature limits.

GENERAL CHARACTERISTICS

BASE DESIGNATION	DOWN	BASE PINS	4
NOMINAL HEATER	2.5 V / 5.5 A	PARALLEL HEATER	– / –
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Thyatron	
MAXIMUM PLATE VOLTAGE	1250 V
MAXIMUM CATHODE CURRENT	1 A
PEAK INVERSE VOLTAGE	1250 V
NOMINAL OUTPUT CURRENT	1 A
PEAK FORWARD CURRENT	3 A
Gas/mercury-filled grid-controlled rectifier (thyatron).	

NATIONAL POWER TUBE NL-714 is a quick heating industrial thyatron designed especially for timing control and regulated rectifier applications. It is gas and mercury filled for quick starting and constancy of characteristics within wide temperature limits. NL-715-5557 has the same general characteristics, within its narrower temperature limits, but is filled with mercury only to permit use of the tube at higher voltages such as are found in the amateur radio transmitter application. NAT

SOURCE OPERATING CONDITIONS

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1956 National Electronics Industrial Tubes

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

1956 NATIONAL ELECTRONICS INDUSTRIAL TUBES

Section 1 · Thyatron

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
1 Ampere do	3 Amperes Peak A	Source technical-information table; wording preserved from datasheet.
NL-714	-- NL-715/5557 --~	Source technical-information table; wording preserved from datasheet.
do Amperes output (maximum)	I .0 .25 .5 I .0 A	Source technical-information table; wording preserved from datasheet.
Instantaneous Amperes output (maximum)	3 I 2 3 A	Source technical-information table; wording preserved from datasheet.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum time of averaging anode current (seconds)	5 5 5 5 A	Source technical-information table; wording preserved from datasheet.
Maximum peak inverse volts	1250 10,000 5,000 1250 V	Source technical-information table; wording preserved from datasheet.
Maximum peak forward volts	1250 5,000 2,500 1250 V	Source technical-information table; wording preserved from datasheet.
Condensed mercury temperature	limits (C) -40--+80 +40--+60 +40--+80 +40--+90 C	Source technical-information table; wording preserved from datasheet.
Filament volts	2.5 2.5 V	Source technical-information table; wording preserved from datasheet.
Filament amperes	5 ± .5 5 ± .5 A	Source technical-information table; wording preserved from datasheet.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heating time (seconds)	5 5 s	Source technical-information table; wording preserved from datasheet.
Maximum negative grid voltage before conduction (volts) . . . 500	500 V	Source technical-information table; wording preserved from datasheet.
Maximum negative grid voltage during conduction (volts)	10 10 V	Source technical-information table; wording preserved from datasheet.
Maximum critical grid current (microamps)	5 5 A	Source technical-information table; wording preserved from datasheet.
Maximum ac short circuit current (amperes)	50 50 A	Source technical-information table; wording preserved from datasheet.
Approx. temp. rise, cond. mercury above ambient (nC)	15 15	Source technical-information table; wording preserved from datasheet.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Net weight (ounces)	3 3 oz	Source technical-information table; wording preserved from datasheet.
Approx. shipping weight (lbs.)	3 3 lb	Source technical-information table; wording preserved from datasheet.
14 -12 -10	-8 6 -4 -2	Source technical-information table; wording preserved from datasheet.

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical arc drop at 3 amperes peak (volts)	15 15 V	Source technical-information table; wording preserved from datasheet.
Ionization time (approx., microseconds)	10 10 us	Source technical-information table; wording preserved from datasheet.
Deionization time (approx., microseconds)	1000 1000 us	Source technical-information table; wording preserved from datasheet.
Anode to grid capacitance (uuf)	2 2 pF	Source technical-information table; wording preserved from datasheet.



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Section 1 · Thyatron

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum peak forward voltage	1250 V	—
Maximum peak output current	3 A	—
Maximum dc output current	1 A	—