

8T39

1 SECTION
CONSTRUCTION
TRIODE

Power - Triode (over 1000V 100W) electronic tube

Vapor-cooled high-power transmitting triode for RF amplification, modulation, and oscillator service in AM broadcasting and industrial-heating equipment. Its 10 kW plate-dissipation rating supports efficient multi-kilowatt continuous RF generation.

GENERAL CHARACTERISTICS

BASE DESIGNATION	–	BASE PINS	–
NOMINAL HEATER	7.5 V / –	PARALLEL HEATER	– / –
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
TRANSCONDUCTANCE	0.018 S
AMPLIFICATION FACTOR	40
MAXIMUM PLATE VOLTAGE	10000 V
MAXIMUM PLATE DISSIPATION	10000 W
MAXIMUM GRID DISSIPATION	250 W
Published maximum ratings and characteristics audited; remaining numeric data retained densely in parameter table.	

The 8T39 is a vapor-cooled power triode for amplifier, modulator, and oscillator service in AM broadcast transmitters and industrial-heating equipment.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1971 NEC

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

1971 NEC

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
The NEC	8739	The NEC 8739 is a vapour cooled triode with a maximum plate
dissipation rating of	10 kW	dissipation rating of 10 kW, The tube is a vapour cooled
fficiency [1]	1	fficiency 1is easily obtainable at relatively 1low plate
fficiency [2]	1	fficiency 1is easily obtainable at relatively 1low plate
Maximum Starting Current [1]	0 mA	Maximum Starting Current 00000 '120 amps
Maximum Starting Current [2]	120 A	Maximum Starting Current 00000 '120 amps
Amplification FRCLOr ..eeee sesvcvrosonens	40	Amplification FRCLOr ..eeee sesvcvrosonens 40 G: Grid ,
Grid to Plate iciennanneeans chenes	26	Grid to Plate iciennanneeans chenes 26 uuk TERMINAL CONNECTIONS
Grid to Filament ...cuieeeecevcvnsosnn	49	Grid to Filament ...cuieeeecevcvnsosnn 49 P
Plate to Filament ... ieeieeiinnerennes	0.7	Plate to Filament ... ieeieeiinnerennes 0.7 uuF
Filament connecctor (	2	Filament connecctor (2 required} et eseesets
Grid connector it e et ecesitceier st es et esnca o e s st s ecnasconnn o NEC VT3	5	Grid connector it e et ecesitceier st es et esnca o e s st s ecnasconnn o NEC VT305
approx	35	approx. 35 mm diameter into center of the filament terminals.
Note	2	Note 2. Adequate forced-air flow is required +to limit +the temperature of the
"flfg"n }':' tlon of fllamentvoltage.:'	3 V	."flfg"n }':' tlon of filamentvoltage.: ' 3 f, EUNNRRRE 'fv ;,"
DC Plate VOLTage «uuveevvsssessnsosesesassessasssnssnessansssssssneess	10000 V	DC Plate VOLTage «uuveevvsssessnsosesesassessasssnssnessansssssssneess 10000 volts
" Max. Signal DC Plate Current (Note [1]	4 A	" Max. Signal DC Plate Current (Note 4),.....S...;...;..... 2.5 amps
" Max. Signal DC Plate Current (Note [2]	2.5 A	" Max. Signal DC Plate Current (Note 4),.....S...;...;..... 2.5 amps
"""" Signal Plate Inpu'o (Note [1]	4 kW	"""" Signal Plate Inpu'o (Note 4) uulivieeerneabasinesorsessunnennnes 25 kW
"""" Signal Plate Inpu'o (Note [2]	25 kW	"""" Signal Plate Inpu'o (Note 4) uulivieeerneabasinesorsessunnennnes 25 kW
DC Plate Voltage [1]	4 V	DC Plate Voltage 4'.'"..'A..'.'"..'.....-'v.....R- " .»'.'.'....." 5000 8000 "olts
DC Plate Voltage [2]	5000 V	DC Plate Voltage 4'.'"..'A..'.'"..'.....-'v.....R- " .»'.'.'....." 5000 8000 "olts
DC Plate Voltage [3]	8000 V	DC Plate Voltage 4'.'"..'A..'.'"..'.....-'v.....R- " .»'.'.'....." 5000 8000 "olts

