

6BC7

Diode (NOT rectifier) electronic tube

Triple independent high-perveance diode, including two balanced sections, designed for FM, AM, and television detector circuits.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9R	BASE PINS	9
NOMINAL HEATER	6.3 V / 450 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Diode	
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM CATHODE CURRENT	12 mA
PEAK INVERSE VOLTAGE	330 V
NOMINAL OUTPUT CURRENT	12 mA
PEAK FORWARD CURRENT	54 mA
MAXIMUM HEATER-CATHODE VOLTAGE	200 V
Published promoted fields populated semantically; identical repeated sections compressed where applicable.	

SECTION2 Diode	
No fixed ratings recorded.	
Physical diode section added during approved section-structure reconciliation.	

SECTION3 Diode

No fixed ratings recorded.

Physical diode section added during approved section-structure reconciliation.

Triple independent high-perveance diode, with two balanced sections, for FM/AM and television detector circuits.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1950 Sylvania

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

1950 SYLVANIA

Section 1 · Diode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage . 6.3 Volts 18	6.3 V	Heater Voltage . 6.3 Volts 18
Heater Current . . . 450 Ma .	450 mA	Heater Current . . . 450 Ma .
Plate Current at Ey == 5 Volts	5 V	Plate Current at Ey == 5 Volts
Plate Current at Ep, == 0 Volts	0 V	Plate Current at Ep, == 0 Volts
Plate Current Ratio at Ky, == 5 Volts	5 V	Plate Current Ratio at Ky, == 5 Volts

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Inverse Plate Voltage . . 330 Volts Max.	330 V	Peak Inverse Plate Voltage . . 330 Volts Max.
D C Output Current . 12 Ma Max.	12 mA	D C Output Current . 12 Ma Max.
Peak Plate Current 5S4 Ma Max.	4 mA	Peak Plate Current 5S4 Ma Max.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

195X General Electric Essential Characteristics

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

195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

Section 1 · Diode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum DC output current per plate	12 mA	HalfWaveRectifier

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Average diode current	35 mA	At +5 V DC



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1961 Tung Sol

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

1961 TUNG SOL

Section 1 · Diode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Average Diode Current	4 mA	EachDiode



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1966 Tung Sol Electronic Tubes 1 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 1 OF 4

Section 1 · Diode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Independent detector diode; two sections balanced for balanced detection	EachSection
Peak heater-cathode voltage maximum	200 V	EachSection

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Detector service	FM/AM detection and television detector arrangements	EachSection



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1971 RCA HB3 Binder 4 of 7

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

1971 RCA HB3 BINDER 4 OF 7

Section 1 · Diode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage ac or dc	6.3 V	—
Current	450 mA	—
PEAK INVERSE PLATE VOLTAGE max	330 V	—
PEAK PLATE CURRENT° max,	54 mA	—
DC OUTPUT CURRENT max	12 mA	—
Heater negative with respect to cathode max	200 V	—
Heater positive with respect to cathode max	200 V	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater, and Internal Shield	3.5 pF	—
Heater, and Internal Shield	5.5 pF	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Current	450 mA	PublishedColumn1
Heater Current	490 mA	PublishedColumn2
per plate is	560 ohm	—
(Each Unit)	35 mA	PublishedColumn1
(Each Unit)	65 mA	PublishedColumn2
with	6.3 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
x ote : with plate voltage of	1 V	PublishedColumn1
x ote : with plate voltage of	0 V	PublishedColumn2
Note : Witty plate voltage of	3 V	PublishedColumn1
Note : Witty plate voltage of	5 V	PublishedColumn2

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes,
and their source documents.

[Catalog](#) [Tube types](#) [Full books](#) [Blog](#) [Feedback & corrections](#)

© 2026 Tube Tinker