

ELECTRONIC TUBE REFERENCE

6AL5W

Diode (NOT rectifier) electronic tube

CONSOLIDATED TECHNICAL DATA
2 SECTIONS
CONSTRUCTION
DIODE-DIODE

Ruggedized special-quality 6AL5-family twin diode for detector, discriminator, clipping, and switching service in demanding military and industrial equipment.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9M	BASE PINS	7
NOMINAL HEATER	6.3 V / 300 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

9M - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – P1	A	P – Plate (Anode)	CONNECTED
PIN3 – K	A	K – Cathode	CONNECTED
PIN4 – H	–	H – Heater	CONNECTED
PIN5 – H	–	H – Heater	CONNECTED
PIN7 – P2	B	P – Plate (Anode)	CONNECTED

SECTION RATINGS

SECTION1 Diode	
MAXIMUM CATHODE CURRENT	10 mA
PEAK INVERSE VOLTAGE	360 V
NOMINAL OUTPUT CURRENT	9 mA
PEAK FORWARD CURRENT	60 mA
MAXIMUM HEATER-CATHODE VOLTAGE	360 V
<i>Published promoted fields populated semantically; identical repeated sections compressed.</i>	

SECTION2 Diode	
<i>No fixed ratings recorded.</i>	
<i>Second physical diode section added in approved section-structure reconciliation.</i>	

Ruggedized miniature twin diode with an inter-section shield for independent operation, useful in clippers, clampers, FM/AM detector and discriminator circuits and military/industrial airborne equipment.



SOURCE OPERATING CONDITIONS

1940 RCA

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

1940 RCA

Section 1 · Diode

APPLICATION

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	WideBandDetector text	—



SOURCE OPERATING CONDITIONS

1958 Compagnie General

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

1958 COMPAGNIE GENERAL

Section 1 · Diode

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Inverse Voltage	360 V	EachSection
Filter Input Capacitance	8 uF	—

CHARACTERISTIC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Minimum Resonant Frequency	700 MHz	EachSection



195X Raytheon Special Purpose Tubes

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

195X RAYTHEON SPECIAL PURPOSE TUBES

Section 1 · Diode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak inverse voltage maximum	330 V	EachSection
DC output current maximum per plate	9 mA	EachSection



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate1 To Plate2 Capacitance	0.068 pF	WithoutShield
Plate1 To Plate2 Capacitance	0.026 pF	WithShield



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1963 Amperex Condensed

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

1963 AMPEREX CONDENSED

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC output current per plate	9 mA	RatioDetector
Minimum total effective plate supply impedance	300 ohm	RatioDetector

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Resonant frequency	700 MHz	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1963 Siemens

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

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Forward current at 10 V	60 mA	Nominal
Resonance frequency	700 MHz	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak diode current	60 mA	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1966 Tung Sol Electronic Tubes 3 of 4

SOURCE PDF

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

Section 1 · Diode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum peak inverse voltage	360 V	PromotedValue
Peak forward/surge current	60 mA	PromotedValue
MAXIMUM PEAK INVERSE PLATE VOLTAGE	36 VOLTS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
MAXIMUM SURGE CURRENT (EACH SECTION)	350 mA	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
MAXIMUM HEATER CATHODE VOLTAGE	360 VOLTS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC output current	10 mA	PromotedValue
6.3 VOLTS – published value 1	6.3 VOLTS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
6.3 VOLTS – published value 2	0.3 VOLTS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
HEATER VOLTAGE – published value 1	3 VOLTS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
HEATER VOLTAGE – published value 2	1 VOLTS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
HEATER	6.3 VOLTS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
HEATER CURRENT	0.3 AMP	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
AC PLATE VOLTAGE, PER PLATE (RMS)	117 VOLTS	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
DC OUTPUT CURRENT, PER PLATE	9	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HEATER CURRENT – published value 1	275 mA	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
HEATER CURRENT – published value 2	325 mA	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
HUMIDITY=0~ VOLTAGE=50pVac, 6C CYCLE S~ – published value 1	50	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
HUMIDITY=0~ VOLTAGE=50pVac, 6C CYCLE S~ – published value 2	6	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
Ef = 6.3 Volts	6.3 Volts	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.
Eq = 6.3 volts	6.3 volts	OCR table transcription; verify against supplied datasheet layout where multiple columns represent operating conditions.