from JEDEC release #3965, Nov. 5, 1962

JEDEC release #3965A (Jan. 28, 1963) states:

Delete data and substitute statement: Type 6189 is the same as type 12AU7.

TYPE: 6189

SPONSOR: JT-5 COMMITTEE

(JEDEC Committee on Low-Power Vacuum Tubes)

DOUBLE TRIODE

Mechanical Data

Coated unipotential cathode

Outline drawing	6-2	Bulb	T 6 1/2
Base	E9-1 small button 9-pin		
Maximum diameter	7/8"		
Maximum overall length	2 3/16"		
Maximum seated height	1 15/16"		
Pin connections	Basing 9A		

Pin 1 - No. 2 Plate	Pin 5 - Heater
Pin 2 - No. 2 Grid	Pin 6 - No. 1 Plate
Pin 3 - No. 2 Cathode	Pin 7 - No. 1 Grid
Pin 4 - Heater	Pin 8 - No. 1 Cathode
	Pin 9 - Heater center tap

Mounting position . . . . . Any

Electrical Data *

Direct interelectrode capacitances (approx.)	No. 1 Triode		No. 2 Triode		
Grid to plate: (g to p)	1.5Δ	1.5	1.5Δ	1.5	µµf
Input: g to (h + k)	1.8	1.6	1.8	1.6	µµf
Output: p to (h + k)	2.0	0.40	2.0	0.32	µµf

Δ External shield No. 315 connected to cathode of unit under test.

Heater characteristics

Heater voltage		12.6/6.3	volts
Heater current		150/300	ma
Maximum heater-cathode voltage			
Heater negative with respect to cathode:	Total DC and peak. . .	200	volts
Heater positive with respect to cathode:	DC	100	volts
	Total DC and peak. . .	200	volts

Ratings ** Class A1 amplifier

Maximum plate voltage	300	volts
Maximum plate dissipation		
Each plate	2.75	watts
Both plates	5.5	watts
Maximum cathode current	20	ma
Maximum grid circuit resistance		
Fixed bias	0.25	megohm
Cathode bias	1.0	megohm

* All ratings and operating conditions and characteristics are for each unit except where otherwise stated.

** All values are evaluated on design center system except where absolute maximum is stated.

Typical operating conditions and characteristics, class A1 amplifier

Plate voltage	100	250	volts
Grid voltage	0	-8.5	volts
Plate current	11.8	10.5	ma
Plate resistance (approx.)	6500	7700	ohms
Transconductance	3100	2200	μmhos
Amplification factor	20	17	
Grid voltage (approx.) for Ib = 10 μa	-	-24	volts

Ratings ** Vertical Deflection Oscillator §

Maximum DC plate voltage	300	volts
Maximum plate dissipation		
Each plate	2.75	watts
Both plates	5.5	watts
Maximum peak negative grid voltage	400	volts
Maximum average cathode current	20	ma
Maximum peak cathode current	60	ma
Maximum grid circuit resistance	2.2	megohms

Ratings ** Horizontal Deflection Oscillator §

Maximum DC plate voltage	300	volts
Maximum plate dissipation		
Each plate	2.75	watts
Both plates	5.5	watts
Maximum peak negative grid voltage	600	volts
Maximum average cathode current	20	ma
Maximum peak cathode current	300	ma
Maximum grid circuit resistance	2.2	megohms

Ratings ** Vertical Deflection Amplifier §

Maximum DC plate voltage	300	volts
Maximum peak positive plate voltage (absolute maximum)	1200	volts
Maximum plate dissipation §§		
Each plate	2.75	watts
Both plates	5.5	watts
Maximum peak negative grid voltage	250	volts
Maximum average cathode current	20	ma
Maximum peak cathode current	60	ma
Maximum grid circuit resistance (cathode bias)	2.2	megohms

** All values are evaluated on design center system except where absolute maximum is stated.

§ For operation in a 525 line, 30-frame system as described in "Standards of Good Engineering Practice for Television Broadcasting Stations; Federal Communications Commission." The duty cycle of the voltage pulse not to exceed 15% of a scanning cycle.

§§ In Stages operating with grid-leak bias, an adequate cathode bias resistor or other suitable means is required to protect the tube in the absence of excitation.

Refer to "Interpretation of Receiving Tube Ratings"