Electronic TUBES

6DE6

PENTODE

DESCRIPTION AND RATING

The 6DE6 is a miniature sharp-cutoff pentode designed especially for use as an intermediate-frequency amplifier in television receivers. The tube features high transconductance and relatively low interelectrode capacitances.

GENERAL

ELECTRICAL

Cathode—Coated Unipotential

Heater Voltage, AC or DC	6.3 ± 10%	Volts
Heater Current	0.3	Amperes

Direct Interelectrode Capacitances	With Shield*	Without Shield	
Grid-Number 1 to Plate, maximum	0.015	0.025	μμf
Input	6.5	6.5	μμf
Output	3.0	2.0	μμf

MECHANICAL

Mounting Position—Any
Envelope—T-5½, Glass
Base—E7-1, Miniature Button 7-Pin
* With External Shield (RETMA 316) connected to pin 2.

MAXIMUM RATINGS

DESIGN-MAXIMUM VALUES

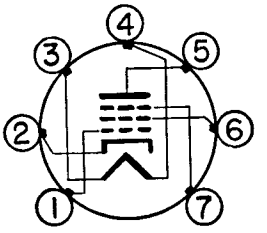
Plate Voltage	330	Volts
Screen-Supply Voltage	330	Volts
Screen Voltage—See Screen Rating Chart		
Positive DC Grid-Number 1 Voltage	0	Volts
Plate Dissipation	2.3	Watts
Screen Dissipation	0.55	Watts
Heater-Cathode Voltage		
Heater Positive with Respect to Cathode		
DC Component	100	Volts
Total DC and Peak	200	Volts
Heater Negative with Respect to Cathode		
Total DC and Peak	200	Volts

Design-Maximum Ratings are the limiting values expressed with respect to bogie tubes at which satisfactory tube life can be expected to occur for the types of service for which the tube is rated. Therefore, the equipment designer must establish the circuit design so that initially and throughout equipment life no design-maximum value is exceeded with a bogie tube under the worst probable operating conditions with respect to supply-voltage variation, equipment component variation, equipment control adjustment, load variation, and environmental conditions.

GENERAL ELECTRIC

Supersedes ET-T942, dated 5-55

BASING DIAGRAM

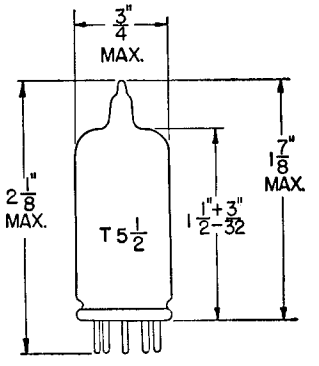


RETMA 7CM

TERMINAL CONNECTIONS

Pin 1—Grid Number 1
Pin 2—Cathode
Pin 3—Heater
Pin 4—Heater
Pin 5—Plate
Pin 6—Grid Number 2 (Screen)
Pin 7—Internal Shield and Grid Number 3 (Suppressor)

PHYSICAL DIMENSIONS



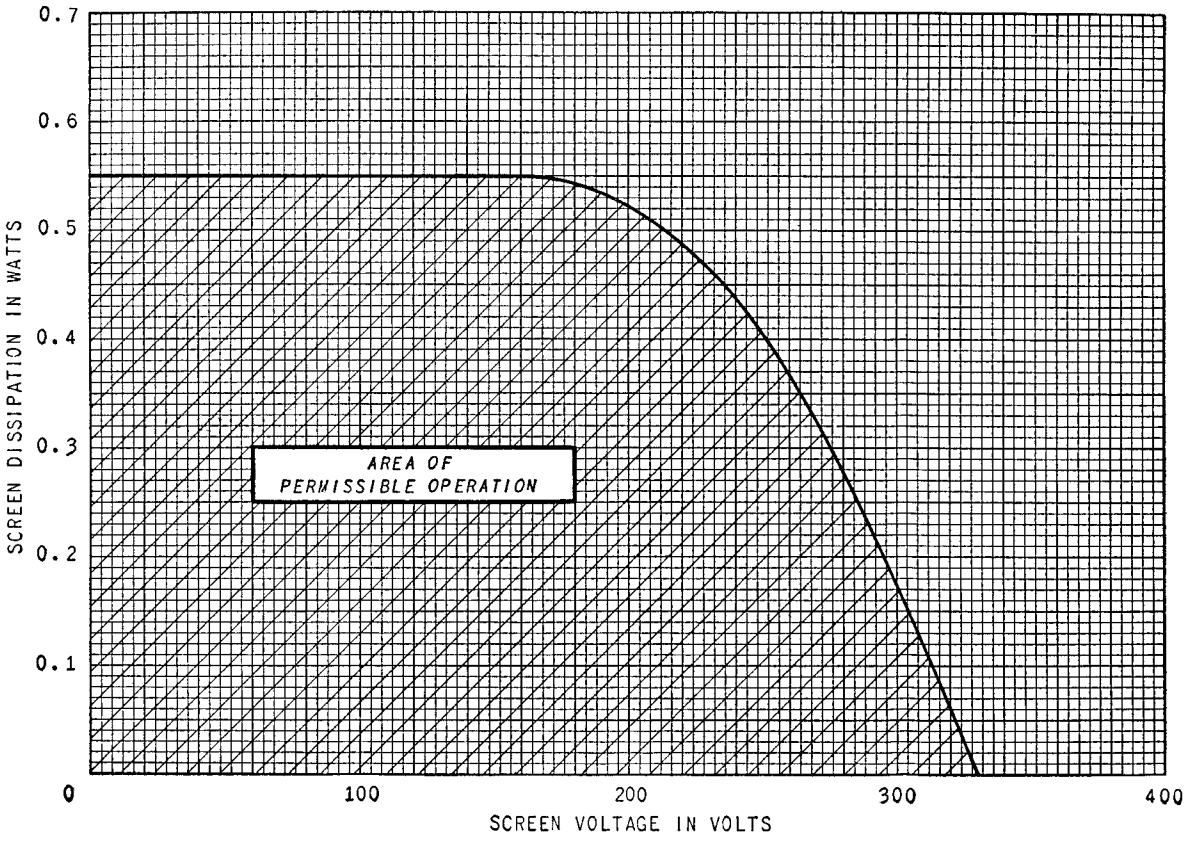
RETMA 5-2

CHARACTERISTICS AND TYPICAL OPERATION

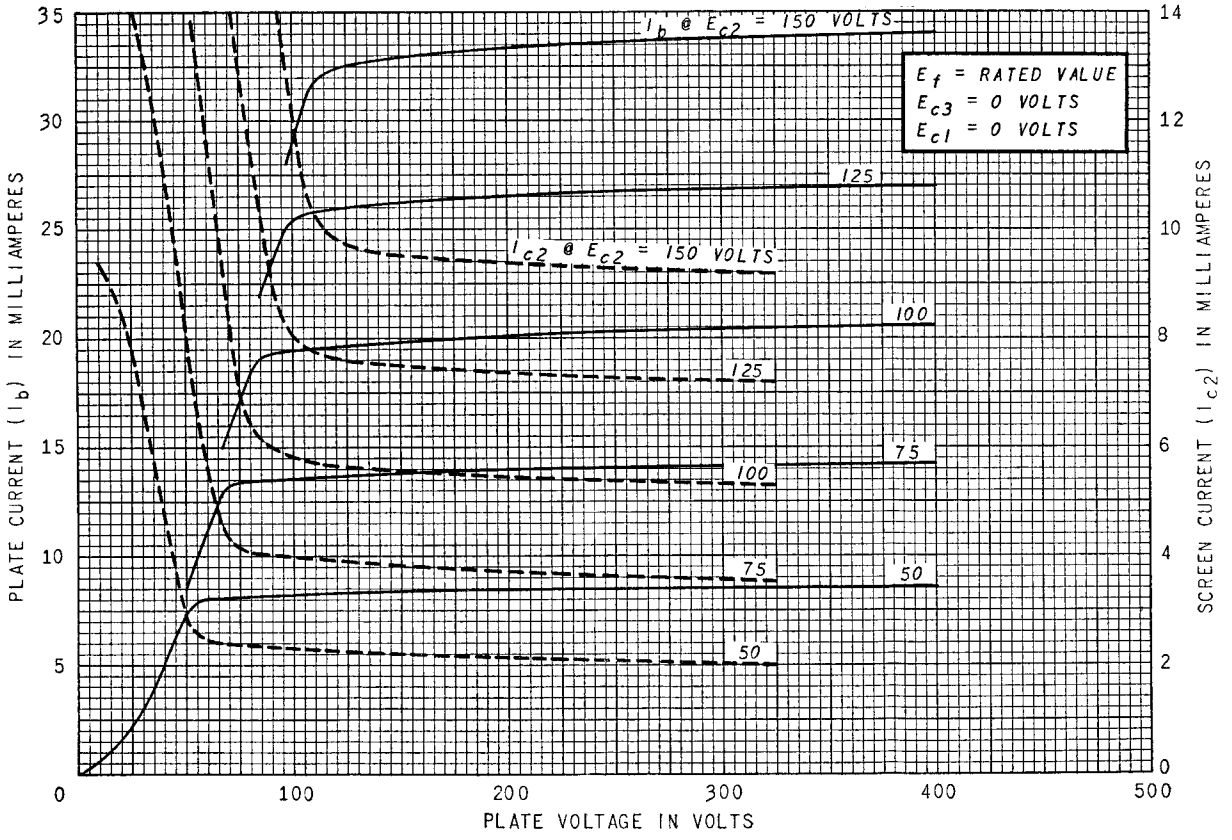
CLASS A_1 AMPLIFIER

Plate Voltage	125	125	Volts
Suppressor, Connected to Cathode at Socket			
Screen Voltage	125	125	Volts
Grid-Number 1 Voltage	−5.5	—	Volts
Cathode-Bias Resistor	—	56	Ohms
Plate Resistance, approximate	—	0.25	Megohms
Transconductance	700	8000	Micromhos
Plate Current	—	15.5	Milliamperes
Screen Current	—	4.2	Milliamperes
Grid-Number 1 Voltage, approximate			
I_b = 20 Microamperes	—	−9	Volts

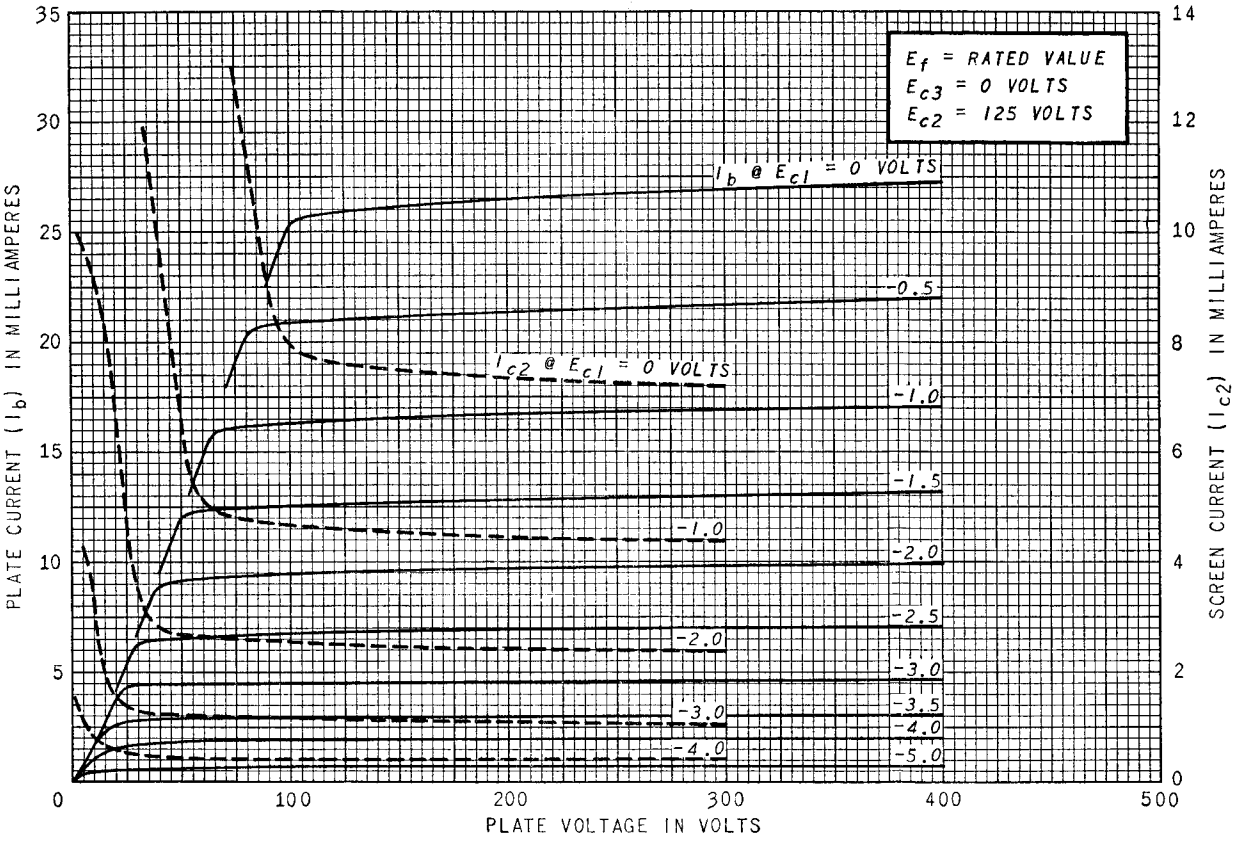
SCREEN RATING CHART



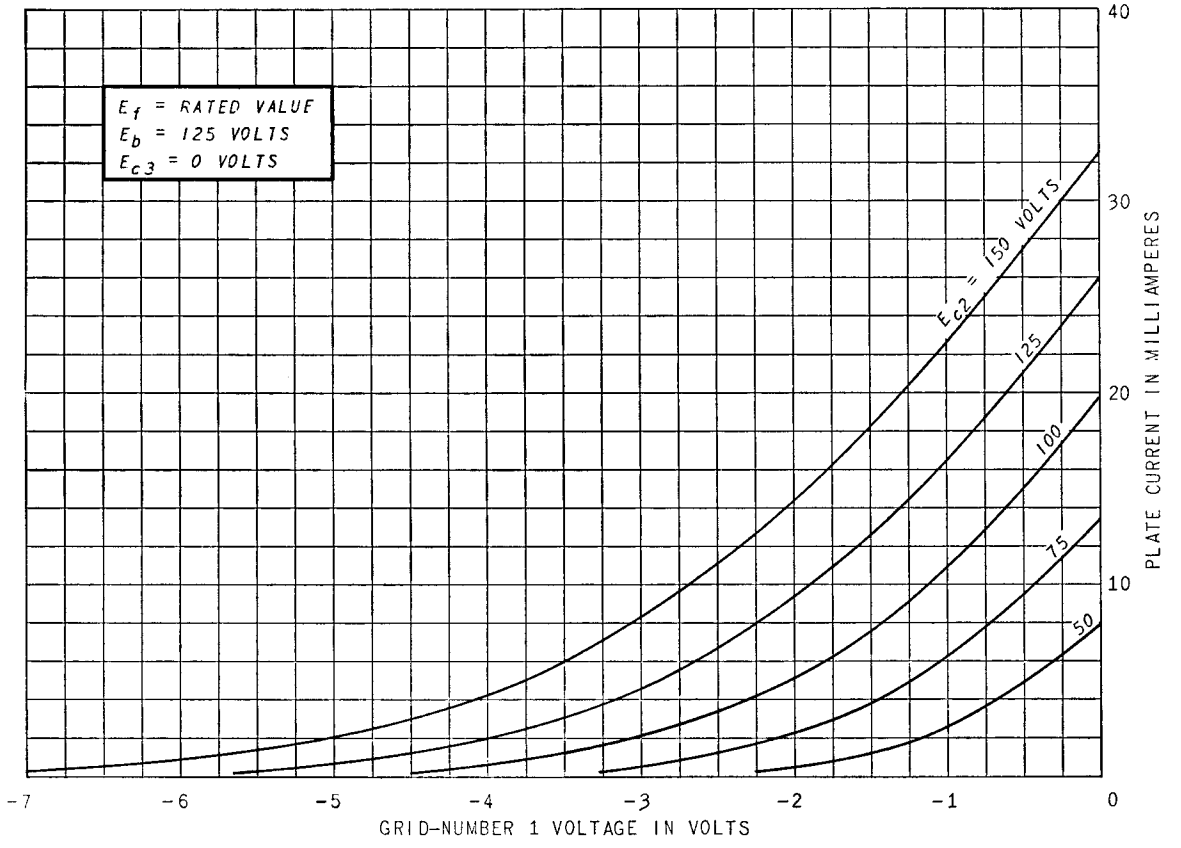
AVERAGE PLATE CHARACTERISTICS



AVERAGE PLATE CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS



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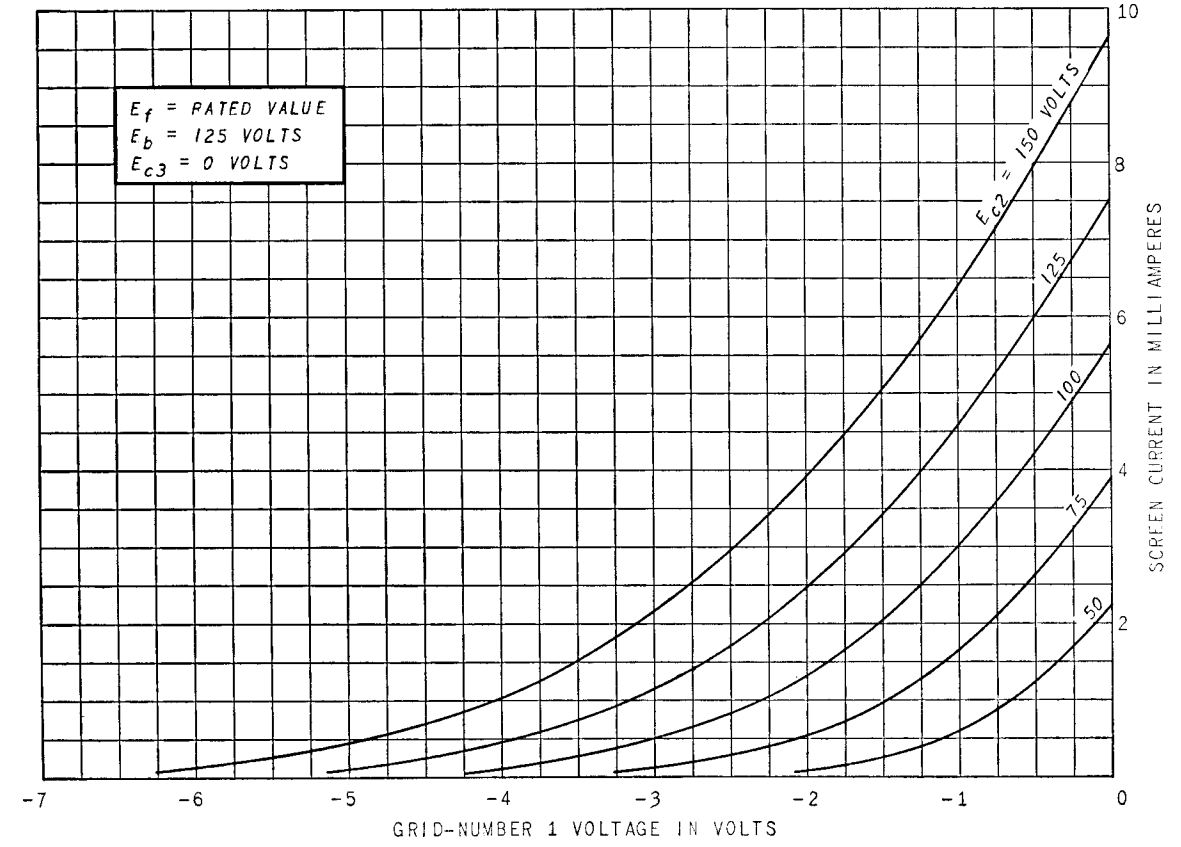

AVERAGE TRANSFER CHARACTERISTICS