

## SHARP-CUTOFF PENTODE TYPE 8425

The 8425 is a 7-pin miniature, sharp-cutoff pentode type designed for service in wide band IF and RF amplifiers. It is operationally similar to type 6AU6 but has a higher transconductance-to-plate-current ratio.

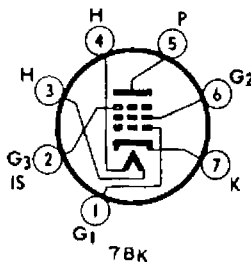
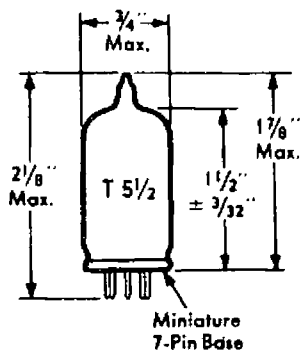
The 8425 features cathode materials and cathode coatings controlled for interface-free long life in industrial applications.

### ELECTRICAL

Cathode.....	Coated Unipotential
Heater:	
Voltage (ac or dc).....	6.3 ± 10% Volts
Current.....	0.30 Ampere
Direct Interelectrode Capacitances:	
Pentode Connection:	Unshielded
Grid to Plate (Max.).....	0.0030 pf
Input.....	5.9 pf
Output.....	5.1 pf
Triode Connection (Note 1):	
Grid to Plate.....	2.5 pf
Input.....	3.6 pf
Output.....	1.1 pf

### MECHANICAL

Bulb.....	T-5½
Base.....	Miniature 7-Pin (JEDEC E7-1)
Outline.....	5-2
Basing.....	7BK
Mounting Position.....	Any



### MAXIMUM RATINGS

Design Maximum Values	Triode Connection	Pentode Connection	
Plate Voltage.....	275	330	max. Volts
Grid 2 Supply Voltage.....	(Note 1)	330	max. Volts
Grid 2 Voltage.....	(Note 1)	See Grid 2 Input	
			Rating Chart
Plate Dissipation.....	3.5	3.5	max. Watts
Grid 2 Dissipation.....	-	0.75	max. Watts
Grid 1 Voltage, Positive			
Bias Value.....	0	0	max. Volts
Heater-Cathode Voltage:			
Heater Negative with Respect to Cathode			
Total DC + Peak.....		200	max. Volts
Heater Positive with Respect to Cathode			
DC Component.....		100	max. Volts
DC + Peak.....		200	max. Volts
Cathode Interface Impedance after 1000			
Hour Life Test (Note 2).....		5	max. Ohms

### AMPLIFIER - CLASS A

#### CHARACTERISTICS AND TYPICAL OPERATION

Plate Voltage.....	100	250	250	Volts
Grid 2 Voltage.....	100	125	150	Volts
Grid 3 Voltage.....	Connected to Cathode			
Cathode Resistor.....	150	100	68	Ohms
Transconductance.....	4500	5500	6200	μmhos
Plate Resistance.....	0.6	1.3	1.1	Megohm
Grid 1 Cutoff Bias (Note 3).....	-4.1	-4.9	-5.8	Volts
Plate Current.....	4.8	7.4	10.5	Ma.
Grid 2 Current.....	1.9	2.8	4.1	Ma.

#### CHARACTERISTICS (Triode Connected)

Plate Voltage.....	250	Volts
Cathode Resistor.....	330	Ohms
Amplification Factor.....	41	-
Transconductance.....	6000	μmhos
Plate Current.....	11.2	Ma.

### NOTES

- Grids 2 and 3 connected to plate.
- Life Test Conditions:
 

Filament Volts = 6.5	Grid 1 Volts = -4.0
Plate Volts = 250	Grid 3 Volts = 0
Grid 2 Volts = 250	Cathode ohms = 0
Grid 1 Resistor = 250K	Heater to Cathode Volts = -200

Cathode-Interface Impedance Test:  
As detailed in ASTM F300-6 IT; appendix III  
with Filament Volts = 5.7.
- For plate current of 10 μa

from JEDEC release #4321, July 1, 1963

