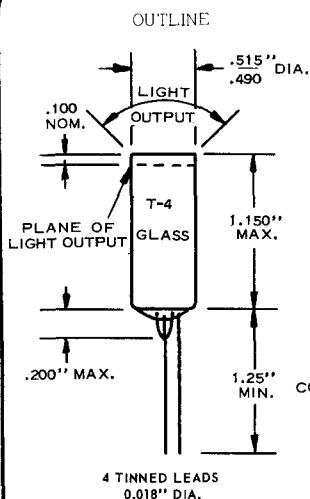


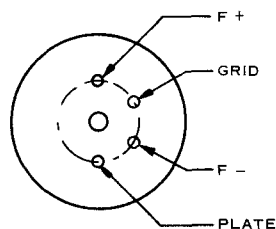
TUNG-SOL

INDICATOR TRIODE
SUBMINIATURE TYPE

BASE DIAGRAM

FOR
ELECTRONIC COMPUTER
APPLICATIONS

COATED FILAMENTARY CATHODE



BOTTOM VIEW

THE 8569 IS A LONG-LIFE FILAMENTARY HIGH-VACUUM END-VIEW INDICATOR TRIODE IN A T-4 GLASS ENVELOPE. ITS GRID SHAPED PLATE IS COATED WITH A PHOSPHOR WHICH GIVES A BRIGHT BLUE GREEN LIGHT PROPORTIONAL TO PLATE CURRENT. IT IS DESIGNED FOR APPLICATIONS IN ELECTRONIC COMPUTERS, WHERE ITS SMALL SIZE, LOW ENERGY REQUIREMENTS, HIGH SENSITIVITY, AND FREEDOM FROM NOISE MAKE IT VERY USEFUL IN COMBINATION WITH TRANSISTORIZED CIRCUITS.

OPTICAL DATA

LIGHT OUTPUT
SPECTRAL OUTPUT OF PHOSPHOR
PERSISTENCE CHARACTERISTICS
LIGHT OUTPUT VS. PLATE VOLTAGE

SEE TYPICAL OPERATION
SEE CURVE 1
SEE CURVE 2
SEE CURVE 3

NOTE: LIGHT OUTPUT MEASURED BY COMPARISON WITH A TUNGSTEN LAMP OF 2870°K COLOR TEMPERATURE USING AN S4 PHOTO DEVICE.

ELECTRICAL DATA

FILAMENT CHARACTERISTICS AND RATINGS

AVERAGE CHARACTERISTICS	0.70 VOLTS	35	mA
LIMITS OF APPLIED VOLTAGE - AC OR DC		0.65 - 0.75	VOLTS

MAXIMUM RATINGS

ABSOLUTE MAXIMUM SYSTEM - SEE EIA STANDARD RS-239

PLATE VOLTS	65	VOLTS
POSITIVE GRID VOLTAGE	0	VOLTS
NEGATIVE GRID VOLTAGE	50	VOLTS
PLATE CURRENT	750	μA
GRID CIRCUIT RESISTANCE	1	MEGOHM
MINIMUM GRID CIRCUIT RESISTANCE	0.1	MEGOHM

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

AVERAGE CHARACTERISTICS**FILAMENT DC, NEGATIVE GROUNDED**

PLATE VOLTAGE	50	VOLTS
GRID VOLTAGE	0	VOLTS
GRID RESISTOR	100	KOHMS
PLATE CURRENT	380	μ A
AMPLIFICATION FACTOR	22	

TYPICAL OPERATION**FILAMENT AC, TRANSFORMER CENTER TAP GROUNDED**

PLATE VOLTAGE	50	VOLTS
GRID RESISTOR	100	KOHMS
WITH GRID VOLTAGE = 0		
PLATE CURRENT	450	μ A
LIGHT OUTPUT	5	m CANDLES
WITH GRID VOLTAGE = -3.0 VOLTS		
PLATE CURRENT	<5	μ A
LIGHT OUTPUT	NOT VISIBLE	

DIRECT INTERELECTRODE CAPACITANCES**WITHOUT EXTERNAL SHIELD**

GRID TO PLATE	1.9	pf
INPUT	1.6	pf
OUTPUT	1.7	pf

