THE 8559 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
PERSISTANCE 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 2,870°K COLOR TEMPERATURE USING AN 54 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

PLATE VOLTS
POSITIVE GRID VOLTAGE
NEGATIVE GRID VOLTAGE
PLATE CURRENT
GRID CIRCUIT RESISTANCE
MINIMUM GRID CIRCUIT RESISTANCE

65 VOLTS
0 VOLTS
50 VOLTS
750 μA
1 MEGOHM
0.1 MEGOHM

CONTINUED ON FOLLOWING PAGE
AVERAGE CHARACTERISTICS

FILAMENT DC, NEGATIVE GROUNDED

PLATE VOLTAGE 50 VOLTS
GRID VOLTAGE 0 VOLTS
GRID RESISTOR 100 KΩHS
PLATE CURRENT 380 μA
AMPLIFICATION FACTOR 22

TYPICAL OPERATION

FILAMENT AC, TRANSFORMER CENTER TAP GROUNDED

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

DIRECT INTERELECTRODE CAPACITANCES

WITHOUT EXTERNAL SHIELD

GRID TO PLATE 1.9 pf
INPUT 1.6 pf
OUTPUT 1.7 pf