MECHANICAL DATA
Bulb ......................... T-3½
Base ......................... E7-1, Miniature Button, 7-Pin
Outline ...................... 5-2
Basing ....................... 4CK
Cathode ........... Cold
Mounting Position ...... Any

ELECTRICAL DATA
RATINGS (Absolute Values) 60 Cycle Supply
Peak Anode and Starter Electrode Voltage
  Inverse ...................... 200 Volts Max.
  Forward ..................... 200 Volts Max.
Cathode Current
  Peak ......................... 100 Ma Max.
  Average 1 .................. 25 Ma Max.
Peak Starter-Electrode Current
  with Starter-Electrode Positive .................. 100 Ma Max.
Ambient Temperature ...... -60 to +75°C Max.

CHARACTERISTICS
Conditions:
Instantaneous Anode Voltage .................. 185 Volts
Peak Positive Starter-Electrode
  Prefiring Voltage ..................... 70 Volts
Peak Positive Starter-Electrode
  Triggering Voltage .................... 50 Volts
Anode Circuit Series Resistance ................ 820 Ohms
Starter-Electrode Series Resistor .............. 100,000 Ohms
Ionization Time ..................... 20 μsec
Deionization Time ................... 500 μsec
Anode Voltage Drop ..................... 68 Volts
Starter Electrode Voltage Drop .............. 61 Volts
Anode Breakdown Voltage .................. 290 Volts
Starter Electrode Breakdown Voltage .......... 80 Volts
Required Transfer Current (DC or AC)
  For Transition of Discharge to
  Anode at 140 Volts Peak .................... 50 μamp

TYPICAL OPERATION
Relay Service with 60 Cycle AC Supply
AC Anode Supply Voltage (RMS) ................. 117 Volts
AC Starter Electrode Voltage
  Maximum Peak Positive Pre-Firing Voltage ....... 70 Volts
  Minimum Peak Positive Triggering Voltage ...... 35 Volts
  Minimum Firing Voltage (Sum of In-Phase
  Instantaneous Pre-Firing Voltage And
  Instantaneous Triggering Voltage) ............. 105 Volts

NOTE:
1. Averaged over any interval of 15 seconds maximum.
APPLICATION DATA

The 5823 may also be used as a rectifier. When so used (with starter-electrode connected through 50,000-Ohm resistor to anode), the 5823 has a maximum peak inverse anode voltage rating of 200 volts, a maximum peak cathode current of 100 milliamperes and a maximum dc cathode current of 25 milliamperes. Operation at values of dc cathode current less than 8 milliamperes is not recommended because of resulting instability.

AVERAGE ANODE CHARACTERISTICS
BREAKDOWN CHARACTERISTICS

STARTER-ELECTRODE SERIES RESISTANCE = 200000 OHMS
RANGES SHOWN BETWEEN INSIDE AND OUTSIDE CURVES TAKE INTO ACCOUNT MAX. AND MIN. + AND - VOLTAGE VALUES FOR INDIVIDUAL TUBES AND FOR CHANGES DURING TUBE LIFE. THE VALUES SHOWN BY DASHED SECTIONS ARE APPROX. ONLY.
TRANSITION CHARACTERISTICS

ANODE VOLTAGE (DC OR INSTANTANEOUS AC)

STARTER-ELECTRODE CURRENT IN mA (DC OR INSTANTANEOUS AC)

AVERAGE INDIVIDUAL INITIAL TUBE VALUES

MAX. INDIVIDUAL TUBE VALUES DURING LIFE