DESCRIPTION

The 6141/A27A* is a three-electrode inert-gas-filled cold cathode tube designed for use as a voltage regulator and has characteristics which are exceptionally stable with life and with variation in ambient temperature. The third electrode is primarily a starting element.

CHARACTERISTICS

- Cathode Current ........................................ 5 to 40 milliamperes
- Anode Voltage Drop ..................................... 100 volts
- Regulation (Max.) at 5 to 40 milliamperes d-c ......... 1.5 volts
RATINGS, Absolute Values

Cathode Current, Forward
- Maximum .................................. 40 milliamperes
- Minimum ................................ 5 milliamperes

Starter Current, Forward
- Maximum .................................. 5 milliamperes
- Minimum .................................. 0.5 milliamperes

Maximum Inverse Starter or Anode Current .... 0.0 milliamperes

Ambient Temperature Limits .................. -55 to +85 centigrade

ELECTRICAL DATA

Anode Breakdown Voltage ................. Min. 165 Max. volts
Anode Voltage Drop at 40 Milliamperes, D-C2 . 99 100 103 volts
Regulation (5 to 40 Milliamperes, D-C)3 . 0.3 1.5 volts
Starter Breakdown Voltage ............... 115 125 135 volts
Starter Voltage Drop at 5 Milliamperes, D-C . 100 110 120 volts
Required Transfer Current ............... See Curve

Stability4 ................................ Min. 0.1 Max. 1.0 volt

Temperature Sensitivity, Anode Voltage Drop
- Anode Current, 5 milliamperes D-C ....... -0.007 volt/c
- Anode Current, 40 milliamperes D-C ....... -0.004 volt/c

MECHANICAL DATA

Mounting Position ......................... Any

Net Weight, Approximate .......... 0.4 ounce

Base ..................................... Small Button 9-pin

Bulb .................................... T6-1/2

Note 1: The minimum starter current requirement applies only when the tube is operated for extended periods (hundreds of hours) between starting operations to assure maintaining starter breakdown and transfer current characteristics.

Note 2: These values are for new tubes. Anode voltage drop will stabilize within 3 minutes after starting. The stability characteristic should be considered during life.

Note 3: Continuous operation at a current value in the low portion of the operating range for an extended period (hundreds of hours) may result temporarily in regulation exceeding the above stated values.

Note 4: The drift of anode voltage drop over a period of 1000 hours, with the tube operating at one value of current and temperature within its ratings, will not exceed the above stated maximum value. Stability improves with operating life. After 1000-2000 hours operation the drift of anode voltage drop per 1000 hours will not exceed 0.3 volt.

Note 5: Pins marked "NO CONNECTION" should not be connected to any portion of an external circuit. Failure to observe this precaution may result in improper operation of the tube.
Western Electric