WESTERN ELECTRIC 6140* ELECTRON TUBE
TYPE DESIGNATION REGISTRATION

DESCRIPTION

The 6140* is a two-electrode inert-gas-filled cold cathode tube designed for use as a voltage reference tube.

RATINGS, Absolute Values

Cathode Current
Maximum Forward - - - - - - - - - - - - - - - - - 8 milliamperes
Minimum Forward - - - - - - - - - - - - - - - - - 4 milliamperes
Maximum Inverse Anode Current - - - - - - - - - - - 0.0 milliamperes
Ambient Temperature Limits- - - - - - - - - - - - -55 to +60 centigrade

ELECTRICAL DATA

Anode Breakdown Voltage
Min. Bogey Max.  --  ---  160 volts
Anode Voltage Drop at 6 Milliamperes (D-C)\(^1\)  99  100  103 volts
Regulation (4 to 6 Milliamperes D-C) --  ---  0.75 volt
Temperature Sensitivity, Anode Voltage Drop.
at Anode Current of 4 Milliamperes (D-C)  --  -0.01  ---  volt/c
at Anode Current of 8 Milliamperes (D-C)  --  -0.02  ---  volt/c
Fluctuation\(^2\)  --  ---  0.1 volt
Stability\(^3\)  --  0.05  0.3 volt

MECHANICAL DATA

Mounting Position - - - - - - - - - - - - - - - - - Any
Net Weight, Approximate - - - - - - - - - - - 0.3 ounce
Outline - - - - - - - - - - - - - -  - 6-1
Bulb - - - - - - - - - - - - - - - - - T6-1/2
Base - - - - - - - - - - - - - - - - - E9-1 Small Button 9-Pin
Maximum Bulb Diameter - - - - - - - - - - 7/8 inch
Maximum Overall Length - - - - - - - - - - 1-3/4 inch
Maximum Seated Height - - - - - - - - - - 1-7/32 inch
Pin Connections\(^4\) - - - - - - PIns #7 and #8 Anode
Pin #1 Internal Connection Pins #7 and #8 Anode
Pins #2 and #3 Cathode Pin #9 Internal Connection
Pins #4, #5 and #6 Internal Connection

Note 1 These values are for new tubes. The stability characteristic should be considered during tube life. Anode voltage drop will stabilize within 5 minutes after starting.

Note 2 The anode voltage drop variation during a short period of time (one to ten minutes), with the tube operating at one value of current and temperature within its ratings, will not exceed the above stated maximum value.

Note 3 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.

Note 4 Pins marked "Internal 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.

*6140/423A

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