MINIATURE TYPE

COATED UNIPO TENTIAL CATHODE

FULL WAVE RECTIFIER

ANY MOUNTING POSITION

THE 6X4 IS A HEATER-CATHODE TYPE POWER RECTIFIER IN THE MINIATURE CONSTRUCTION. ITS LOW VOLTAGE DROP AND SMALL SIZE ADAPT IT TO USE WITH VIBRATOR-TYPE INVERTERS IN AUTOMOBILE RECEIVERS.

HEATER CHARACTERISTICS AND RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

AVERAGE CHARACTERISTICS

TUBE VOLTAGE DROP (MEASURED WITH TUBE CONDUCTING 70 MA EACH PLATE) 22 VOLTS

HEATER SUPPLY LIMITS:

VOLTAGE OPERATION 6.3/0.6 VOLTS

MAXIMUM HEATER CATHODE VOLTAGE:

HEATER NEGATIVE WITH RESPECT TO CATHODE DC 450 VOLTS
TOTAL DC AND PEAK 450 VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE DC 100 VOLTS
TOTAL DC AND PEAK 200 VOLTS

MAXIMUM RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

PEAK INVERSE PLATE VOLTAGE 1250 VOLTS
AC PLATE SUPPLY VOLTAGE EACH PLATE (RMS) SEE CHART I
DC OUTPUT CURRENT EACH PLATE SEE CHART I
STEADY STATE PEAK PLATE CURRENT EACH PLATE (SEE CHART II) 245 MA.
TRANSIENT PEAK PLATE CURRENT EACH PLATE (SEE CHART III) 1.1 AMP.
VIBRATOR OPERATION (MINIMUM DUTY CYCLE OF 75%) DC OUTPUT VOLTAGE (AT FILTER INPUT) 350 VOLTS
DC OUTPUT CURRENT EACH PLATE 45 MA.
TYPICAL OPERATING CHARACTERISTICS
FULL-WAVE RECTIFIER

<table>
<thead>
<tr>
<th>SINE WAVE OPERATION</th>
<th>VIBRATOR OPERATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>INPUT TO FILTER</td>
<td>INPUT TO FILTER</td>
</tr>
<tr>
<td>CAPACITOR</td>
<td>CHOKE</td>
</tr>
<tr>
<td>325</td>
<td>400</td>
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<tr>
<td>10</td>
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<tr>
<td>---</td>
<td>10</td>
</tr>
<tr>
<td>EFFECTIVE PLATE SUPPLY IMPEDANCE EACH PLATE</td>
<td>--- (\Omega)</td>
</tr>
<tr>
<td>DC OUTPUT CURRENT</td>
<td>70</td>
</tr>
<tr>
<td>DC OUTPUT VOLTAGE AT FILTER INPUT (APPROX.)</td>
<td>310</td>
</tr>
</tbody>
</table>

A
WHEN USED IN AUTOMOTIVE SERVICE FROM A 6 VOLT BATTERY SOURCE, THE PERMISSIBLE RANGE IN HEATER VOLTAGE IS FROM 5.0 TO 6.0 VOLS.

B
AC PLATE SUPPLY VOLTAGE IS MEASURED WITHOUT LOAD.

→ INDICATES A CHANGE.

SIMILAR TYPE REFERENCE: Except for heater ratings, the 6X4 is identical to the 12X4.
6X4
RATING CHART II
RECTIFICATION EFFICIENCY
TO KEEP STEADY STATE PEAK CURRENT IN RATING,
CAPACITOR INPUT FILTER.
BASED ON STEADY-STATE PEAK PLATE CURRENT EACH PLATE OF 245 MA.

AREA OF PERMISSIBLE OPERATION

DC OUTPUT PER PLATE - MILLIAMPERES

RECTIFICATION EFFICIENCY

0 0.2 0.4 0.6 0.8 1.0

6X4
RATING CHART III
CAPACITOR INPUT
BASED ON TRANSIENT PEAK PLATE CURRENT EACH PLATE OF 1.1 AMPS

MINIMUM PLATE SUPPLY RESISTANCE EACH PLATE - OHMS

AC PLATE SUPPLY VOLTS (RMS) EACH PLATE - NO LOAD

0 100 200 300 400 500

TUNG-SOL ELECTRIC INC., ELECTRON TUBE DIVISION, BLOOMFIELD, NEW JERSEY, U.S.A., MARCH 1, 1962 PLATE #642