TUNG-SOL

TRIODE PENTODE
MINIATURE TYPE

MEDIUM MU TRIODE AND
SHARP CUT-OFF PENTODE
FOR
MOBILE COMMUNICATIONS EQUIPMENT
COATED UNIPOTENTIAL CATHODES
ANY MOUNTING POSITION

GLASS BULB
MINIATURE BUTTON
9 PIN BASE E9-1
OUTLINE DRAWING
JEDEC 6-2

THE 8446 CONTAINS A MEDIUM MU TRIODE AND A SHARP CUT-OFF HIGH-FREQUENCY PENTODE WITH SEPARATE CATHODES IN THE 9 PIN MINIATURE CONSTRUCTION. IT IS ADAPTED TO GIVE IMPROVED RELIABILITY IN MOBILE RADIO COMMUNICATION EQUIPMENT. ITS HEATER IS DESIGNED TO BE OPERATED FROM AN AUTOMOTIVE BATTERY. ELECTRICALLY THE SAME TYPE, BUT WITH DIFFERENT BASING ARRANGEMENT, IS THE 8445.

DIRECT INTERELECTRODE CAPACITANCES
WITHOUT SHIELD

TRIODE SECTION:
GRID TO PLATE: (TG TO TP)  1.5  pf
INPUT: TG TO (TK + H + PK + PG3 + I.S.)  2.5  pf
OUTPUT: TP TO (TK + H + PK + PG3 + I.S.)  2.2  pf

PENTODE SECTION:
GRID 1 TO PLATE: (PG1 TO PP)  MAX.  0.046  pf
INPUT: PG1 TO (H + PK + PG2 + PG3 + I.S.)  5.0  pf
OUTPUT: PP TO (H + PK + PG2 + PG3 + I.S.)  3.5  pf

COUPLING:
TRIODE GRID TO PENTODE PLATE  MAX.  0.02  pf
PENTODE GRID 1 TO TRIODE PLATE  MAX.  0.16  pf
PENTODE PLATE TO TRIODE PLATE  MAX.  0.07  pf

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HEATER CHARACTERISTICS AND RATINGS
DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

AVERAGE CHARACTERISTICS

- 6.75 VOLTS 440 MA.

LIMITS OF APPLIED HEATER VOLTAGE
- 6.0 TO 7.5 VOLTS

HEATER CATHODE VOLTAGE:
  - HEATER NEGATIVE WITH RESPECT TO CATHODE
    - TOTAL DC AND PEAK: 200 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

<table>
<thead>
<tr>
<th>TRIODE</th>
<th>PENTODE</th>
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<tbody>
<tr>
<td>PLATE VOLTAGE</td>
<td>330</td>
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<tr>
<td>GRID 2 VOLTAGE</td>
<td>200</td>
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<tr>
<td>POSITIVE GRID 1 VOLTAGE</td>
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<tr>
<td>PLATE DISSIPATION</td>
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<tr>
<td>GRID 2 DISSIPATION</td>
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<tr>
<td>GRID 1 CIRCUIT RESISTANCE</td>
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<tr>
<td>FIXED BIAS</td>
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<tr>
<td>CATHODE BIAS</td>
<td>1.0</td>
</tr>
<tr>
<td>VOLTS</td>
<td>VOLTS</td>
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</tbody>
</table>

AVERAGE CHARACTERISTICS

| PLATE VOLTAGE | 100 | 170 |
| GRID 2 VOLTAGE | ----- | 170 |
| GRID 1 VOLTAGE | -1.0 | -2.0 |
| PLATE CURRENT | 12.5 | 10.0 |
| GRID 2 CURRENT | ----- | 2.5 |
| TRANSCONDUCTANCE | 7,000 | 6,200 |
| AMPLIFICATION FACTOR | 43 | |
| PLATE RESISTANCE (APPROX.) | ----- | 0.4 |

<table>
<thead>
<tr>
<th>VOLTS</th>
<th>MEGOHMS</th>
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GRID VOLTAGE (APPROX.) FOR Ib = 50 μA
- -10 VOLTS

GRID 1 VOLTAGE (APPROX.) FOR Ib = 100 μA
- ----- -7 VOLTS