FEATURES
- BROAD BAND INTERNALLY MATCHED FET
- HIGH POWER
  P1dB= 39.5dBm at 8.5GHz to 9.6GHz
- HIGH GAIN
  G1dB= 6.0dB at 8.5GHz to 9.6GHz
- HERMETICALLY SEALED PACKAGE

RF PERFORMANCE SPECIFICATIONS  ( Ta= 25°C )

<table>
<thead>
<tr>
<th>CHARACTERISTICS</th>
<th>SYMBOL</th>
<th>CONDITIONS</th>
<th>UNIT</th>
<th>MIN.</th>
<th>TYP.</th>
<th>MAX.</th>
</tr>
</thead>
</table>
| Output Power at 1dB Gain Compression Point | P1dB   | VDS= 9V  
IDSet= 4.0A  
f = 8.5 to 9.6GHz | dBm   | 38.5 | 39.5 | —    |
| Power Gain at 1dB Gain Compression Point  | G1dB   | VDS= 9V  
IDSet= 4.0A  
f = 8.5 to 9.6GHz | dB    | 5.0  | 6.0  | —    |
| Drain Current                            | IDS    | A            | —    | 3.4  | 4.4  | —    |
| Power Added Efficiency                   | ηadd   | %            | —    | —    | 22   | —    |
| Channel Temperature Rise                 | ΔTch   | (VDS X IDS + Pin – P1dB) X Rth(c-c) | °C   | —    | —    | 80   |

Recommended Gate Resistance(Rg): 100 Ω

ELECTRICAL CHARACTERISTICS  ( Ta= 25°C )

<table>
<thead>
<tr>
<th>CHARACTERISTICS</th>
<th>SYMBOL</th>
<th>CONDITIONS</th>
<th>UNIT</th>
<th>MIN.</th>
<th>TYP.</th>
<th>MAX.</th>
</tr>
</thead>
</table>
| Transconductance                         | gm     | VDS= 3V  
IDSet= 4.0A | S    | —    | 2.4  | —    |
| Pinch-off Voltage                        | VGSo   | VDS= 3V  
IDSet= 120mA | V    | -2.0 | -3.5 | -5.0 |
| Saturated Drain Current                  | IDSS   | VDS= 3V  
VGS= 0V | A    | —    | 8.0  | —    |
| Gate-Source Breakdown Voltage            | VGSO   | IGS= -120µA | V    | -5   | —    | —    |
| Thermal Resistance                       | Rth(c-c) | Channel to Case | °C/W | —    | 1.6  | 2.5  |

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**ABSOLUTE MAXIMUM RATINGS (Ta= 25°C)**

<table>
<thead>
<tr>
<th>CHARACTERISTICS</th>
<th>SYMBOL</th>
<th>UNIT</th>
<th>RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drain-Source Voltage</td>
<td>VDS</td>
<td>V</td>
<td>15</td>
</tr>
<tr>
<td>Gate-Source Voltage</td>
<td>VGS</td>
<td>V</td>
<td>-5</td>
</tr>
<tr>
<td>Drain Current</td>
<td>IDS</td>
<td>A</td>
<td>10.4</td>
</tr>
<tr>
<td>Total Power Dissipation (Tc= 25°C)</td>
<td>PT</td>
<td>W</td>
<td>60</td>
</tr>
<tr>
<td>Channel Temperature</td>
<td>Tch</td>
<td>°C</td>
<td>175</td>
</tr>
<tr>
<td>Storage</td>
<td>Tstg</td>
<td>°C</td>
<td>-65 to +175</td>
</tr>
</tbody>
</table>

**PACKAGE OUTLINE (2-11C1B)**

(Please refer to the diagram for the package outline and pin connections.)

**HANDLING PRECAUTIONS FOR PACKAGE MODEL**

Soldering iron should be grounded and the operating time should not exceed 10 seconds at 260°C or 3 seconds at 350°C.
RF PERFORMANCE

Output Power (Pout) vs. Frequency

- VDS=9V
- IDS≥3.4A
- Pin=33.5dBm

Output Power (Pout) vs. Input Power (Pin)

- freq.=9.6GHz
- VDS=9V
- IDS≥3.4A

Pout (dBm) vs. Pin (dBm) graph with added efficiency (ηadd)
Power Dissipation (PT) vs. Case Temperature (Tc)

PT (W)

Tc (°C)