

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

The **ASI 2N6166** is Designed to operate in a collector modulated VHF Power Amplifier Applications up to 200 MHz.

**FEATURES:**

- $\eta_C = 60\%$  min. @ 100 W/150 MHz
- $P_G = 6.0$  dB min. @ 100 W/150 MHz
- **Omnigold™** Metalization System

**MAXIMUM RATINGS**

<b>I<sub>C</sub></b>	9.0 A
<b>V<sub>CB0</sub></b>	65 V
<b>V<sub>EBO</sub></b>	4.0 V
<b>P<sub>DISS</sub></b>	117 W @ T <sub>C</sub> = 25 °C
<b>T<sub>J</sub></b>	-65 °C to +200 °C
<b>T<sub>STG</sub></b>	-65 °C to +150 °C
<b>θ<sub>JC</sub></b>	1.5 °C/W

**PACKAGE STYLE .500 4L FLG**

DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.220 / 5.59	.230 / 5.84
B	.125 / 3.18	
C	.245 / 6.22	.255 / 6.48
D	.720 / 18.28	.730 / 18.54
E	.125 / 3.18	
F	.970 / 24.64	.980 / 24.89
G	.495 / 12.57	.505 / 12.83
H	.003 / 0.08	.007 / 0.18
I	.090 / 2.29	.110 / 2.79
J	.150 / 3.81	.175 / 4.45
K	.280 / 7.11	
L	.980 / 24.89	1.050 / 26.67

**ORDER CODE: ASI10790**

**CHARACTERISTICS** T<sub>C</sub> = 25 °C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
<b>BV<sub>CES</sub></b>	I <sub>C</sub> = 200 mA	65			<b>V</b>
<b>BV<sub>CEO</sub></b>	I <sub>C</sub> = 200 mA	35			<b>V</b>
<b>BV<sub>EBO</sub></b>	I <sub>E</sub> = 10 Ma	4.0			<b>V</b>
<b>I<sub>CES</sub></b>	V <sub>CE</sub> = 30 V			5.0	<b>mA</b>
<b>I<sub>CB0</sub></b>	V <sub>CB</sub> = 30 V			30	<b>mA</b>
<b>h<sub>FE</sub></b>	V <sub>CE</sub> = 5.0 V      I <sub>C</sub> = 500 mA	5.0			<b>---</b>
<b>C<sub>OB</sub></b>	V <sub>CE</sub> = 28 V      f = 1.0 MHz			130	<b>pF</b>
<b>P<sub>G</sub></b>	V <sub>CC</sub> = 28 V      P <sub>OUT</sub> = 100 W      f = 150 MHz	6.0			<b>dB</b>
<b>η<sub>C</sub></b>	V <sub>CC</sub> = 28 V      P <sub>OUT</sub> = 100 W      f = 150 MHz	60			<b>%</b>