

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

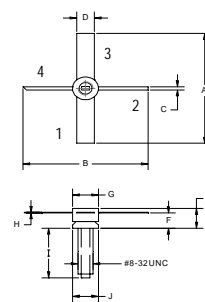
The **MRF838A** is a Common Emitter Device Designed for Class A, B and C Amplifier Applications up to 1.0 GHz.

**FEATURES INCLUDE:**

- Gold Metallization
- Emitter Ballasting
- High Gain

**MAXIMUM RATINGS**

<b>I<sub>C</sub></b>	600 mA
<b>V<sub>CBO</sub></b>	36 V
<b>P<sub>DISS</sub></b>	8.75 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 +200 °C
<b>θ<sub>JC</sub></b>	20 °C/W

**PACKAGE STYLE .205 4L STUD**


DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.976 / 24.800	1.000 / 25.4000
B	.976 / 24.800	1.000 / 25.4000
C	.028 / 0.700	.031 / 0.800
D	.138 / 3.500	
E	.161 / 4.100	.196 / 5.000
F	.098 / 2.500	.110 / 2.800
G	.200 / 5.100	.208 / 5.300
H	.004 / 0.100	.006 / 0.150
I	.425 / 10.800	.465 / 11.800
J	.200 / 5.100	2.05 / 5.200

1 & 3 = EMITTER    2 = BASE  
4 = COLLECTOR

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

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
<b>BV<sub>CES</sub></b>	I <sub>C</sub> = 10 mA	36			<b>V</b>
<b>BV<sub>CEO</sub></b>	I <sub>C</sub> = 10 mA	18			<b>V</b>
<b>BV<sub>EBO</sub></b>	I <sub>E</sub> = 1.0 mA	4.0			<b>V</b>
<b>h<sub>FE</sub></b>	V <sub>CE</sub> = 5.0 V    I <sub>C</sub> = 150 mA	20			<b>---</b>
<b>C<sub>OB</sub></b>	V <sub>CB</sub> = 12.5 V    f = 1.0 MHz			7.5	<b>pF</b>
<b>P<sub>G</sub></b> <b>η<sub>c</sub></b>	V <sub>CE</sub> = 12.5 V    P <sub>OUT</sub> = 1.0 W    f = 870 MHz	6.5 50	7.5		<b>dB</b> <b>%</b>