

# NPN SILICON RF LOW POWER TRANSISTOR

**DESCRIPTION:**

The **ASI MRF837** is Designed primarily for wideband large signal predriver stages in 800 MHz and UHF frequency ranges.

**FEATURES INCLUDE:**

- Min gain 8.0 dB @ 750 mW/870 MHz
- Silicon Nitride passivated
- Low cost Plastic Package

**MAXIMUM RATINGS**

<b>I<sub>C</sub></b>	200 mA
<b>V<sub>CB0</sub></b>	36 V
<b>P<sub>DISS</sub></b>	1.0 W @ T <sub>C</sub> = 25 °C
<b>T<sub>J</sub></b>	-65 °C to +150 °C
<b>T<sub>STG</sub></b>	-65 °C to +150 °C
<b>θ<sub>JC</sub></b>	40 °C/W

**PACKAGE STYLE MACRO-X**

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	4.44	5.21	0.175	0.205
C	1.90	2.54	0.075	0.100
D	0.84	0.99	0.033	0.039
F	0.20	0.30	0.008	0.012
G	0.76	0.14	0.030	0.045
K	7.24	8.13	0.285	0.320
L	10.54	11.43	0.415	0.450
N	---	1.65	---	0.065

1 = COLLECTOR      2 = EMITTER  
3 = BASE

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

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
<b>BV<sub>CES</sub></b>	I <sub>C</sub> = 5.0 mA	36			<b>V</b>
<b>BV<sub>CEO</sub></b>	I <sub>C</sub> = 5.0 mA	16			<b>V</b>
<b>BV<sub>EBO</sub></b>	I <sub>E</sub> = 100 μA	4.0			<b>V</b>
<b>I<sub>CES</sub></b>	V <sub>CE</sub> = 15 V			100	<b>μA</b>
<b>h<sub>FE</sub></b>	V <sub>CE</sub> = 10 V      I <sub>C</sub> = 50 mA	30		200	<b>---</b>
<b>C<sub>OB</sub></b>	V <sub>CB</sub> = 15 V      f = 1.0 MHz		1.8	2.5	<b>pF</b>
<b>P<sub>G</sub></b>	V <sub>CE</sub> = 12.5 V      P <sub>OUT</sub> = 0.75 W      f = 870 MHz	8.0	10		<b>dB</b>
<b>η<sub>c</sub></b>		55	60		<b>%</b>