

# NPN RF POWER TRANSISTOR

**DESCRIPTION:**

The **AM82731-003** is a Common Base Device Designed for Pulsed S-Band Radar Pulse Driver Applications.

**FEATURES INCLUDE:**

- Input/Output Matching
- Gold Metallization
- Emitter Ballasting

**MAXIMUM RATINGS**

<b>I<sub>C</sub></b>	0.9 A
<b>V<sub>CC</sub></b>	34 V
<b>P<sub>DISS</sub></b>	23 W @ T <sub>C</sub> = 25 °C
<b>T<sub>J</sub></b>	-65 °C to +250 °C
<b>T<sub>STG</sub></b>	-65 °C to +200 °C
<b>θ<sub>JC</sub></b>	6.5 °C/W

**PACKAGE STYLE 400 2NL FLG**

DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.020 / 0.51	.030 / 0.76
B	.100 / 2.54	
C	.376 / 9.55	.396 / 10.06
D	.110 / 2.79	.130 / 3.30
E	.395 / 10.03	.407 / 10.34
F		.193 / 4.90
G		.450 / 11.43
H		.125 / 3.18
I	.640 / 16.26	.660 / 16.76
J	.890 / 22.61	.910 / 23.11
K	.395 / 10.03	.415 / 10.54
L	.004 / 0.10	.007 / 0.18
M	.052 / 1.32	.072 / 1.83
N	.118 / 3.00	.131 / 3.33
P		.230 / 5.84

1 = COLLECTOR    2 & 4 = BASE    3 = EMITTER

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

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
<b>BV<sub>CBO</sub></b>	I <sub>C</sub> = 2.0 mA	50			V
<b>BV<sub>CER</sub></b>	I <sub>C</sub> = 2.0 mA    R <sub>BE</sub> = 10 Ω	50			V
<b>BV<sub>EBO</sub></b>	I <sub>E</sub> = 1.0 mA	3.5			V
<b>I<sub>CES</sub></b>	V <sub>CE</sub> = 30 V			2.0	mA
<b>h<sub>FE</sub></b>	V <sub>CE</sub> = 5 V    I <sub>C</sub> = 200 mA	10			---
<b>P<sub>OUT</sub></b>	V <sub>CE</sub> = 30 V    P <sub>IN</sub> = 0.8 W    f = 2.7 to 3.1 GHz	3.0	4.0		W
<b>η<sub>C</sub></b>		27	37		%
<b>P<sub>G</sub></b>		5.7	7.0		dB

Note: Pulse Width = 100 μS  
Duty Cycle = 10%