



NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

The **MRF839F** is Designed for Class AB, Common Emitter Applications Up to 960 MHz.

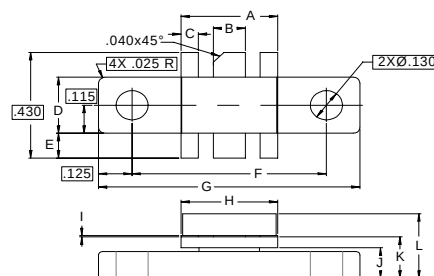
FEATURES INCLUDE:

- Input Matching Network
- High Gain
- Gold Metalization

MAXIMUM RATINGS

I_C	0.6 A
V_{CES}	36 V
P_{DISS}	20 W @ $T_C = 25^\circ\text{C}$
T_J	-55°C to $+200^\circ\text{C}$
T_{STG}	-55°C to $+150^\circ\text{C}$
θ_{JC}	9.0°C/W

PACKAGE STYLE .230 6L FLG



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.355 / 9.02	.365 / 9.27
B	.115 / 2.92	.125 / 3.18
C	.075 / 1.91	.085 / 2.16
D	.225 / 5.72	.235 / 5.97
E	.090 / 2.29	.110 / 2.79
F	.720 / 18.29	.730 / 18.54
G	.970 / 24.64	.980 / 24.89
H	.355 / 9.02	.365 / 9.27
I	.004 / 0.10	.006 / 0.15
J	.120 / 3.05	.130 / 3.30
K	.160 / 4.06	.180 / 4.57
L	.230 / 5.84	.260 / 6.60

1 & 3 & 4 & 6 = EMITTER 2 = BASE
5 = COLLECTOR

CHARACTERISTICS $T_C = 25^\circ\text{C}$

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CES}	$I_C = 5.0\text{ mA}$	40			V
BV_{CEO}	$I_C = 5.0\text{ mA}$	16			V
BV_{EBO}	$I_E = 100\text{ }\mu\text{A}$	3.5			V
I_{CES}	$V_{CE} = 15\text{ V}$			1	mA
h_{FE}	$V_{CE} = 5.0\text{ V}$ $I_C = 100\text{ mA}$	10		150	---
C_{OB}	$V_{CB} = 15\text{ V}$ $f = 1.0\text{ MHz}$			10	pF
P_G	$V_{CE} = 12.5\text{ V}$ $I_{CQ} = 50\text{ mA}$ $P_{OUT} = 3.0\text{ W}$	8.0	10.0		dB
η_C	$F_O = 870\text{ MHz}$	50			%