



**NPN Silicon RF power transistor**

**MRF321**

**Description:**

MRF321 is designed primarily for wideband large-signal driver and predriver amplifier stages in 200–500 MHz frequency range.

Guaranteed Performance at 400 MHz, 28 Vdc

Output Power = 10 Watts

Power Gain = 12 dB Min

Efficiency = 50% Min

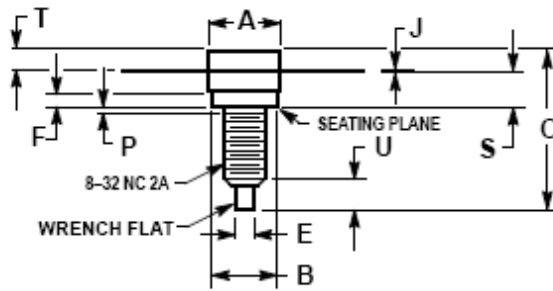
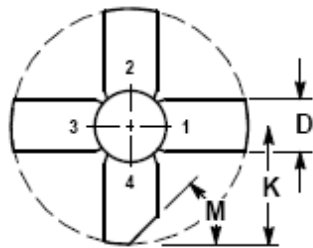
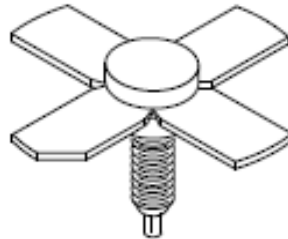
**Maximum Ratings at TU = 25**

Symbol	Test Conditions	Characteristics		Units
BVCEs	IC=5 mA	Max.	65	V
BVCEO	IC=15 mA	Max.	32	V
BVEBO	IE=3 mA	Max.	4	V
IC		Max.	1	A
Ptot		Max.	25	W
TSTG		Min.	-65	
		Max.	150	
TjM		Max.	175	

Characteristics at TU = 25 ( VCC =25 V f=225 MHz )

Symbol	Test Conditions	Characteristics		Units
Pout	Only	Typ.	7	W
GP		Typ.	12	dB
		Typ.	40	%
hFE	IC = 0.5A VCE =10V	Typ.	45	
VCEsat	IC =0.5 A IB =0.1 A	Max.	1	V
ICES	VCE =25V	Max.	1	mA
CCBO	VCB =25V	Typ.	10	pF
IMD			-52	dB

Drawings:



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	7.08	7.28	0.278	0.288
B	6.20	6.50	0.244	0.256
C	14.99	16.51	0.590	0.650
D	5.48	5.98	0.215	0.235
E	1.40	1.65	0.055	0.065
G	1.52	—	0.060	—
J	0.08	0.17	0.003	0.007
K	11.05	—	0.435	—
M	45° NOM		45° NOM	
P	—	1.27	—	0.050
S	3.00	3.25	0.118	0.128
T	1.40	1.77	0.055	0.070
U	2.92	3.68	0.115	0.145

STYLE 1:  
PIN 1. EMITTER  
2. BASE  
3. EMITTER  
4. COLLECTOR

SOT122/ CASE 244