



HF20-12F

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

The HF20-12F is Designed for 12.5 V Class AB & C HF Power Amplifier Applications in the 2 to 32 MHz Band.

FEATURES INCLUDE:

- Replacement for MRF433 & SD1285
- $P_G = 18$ dB Typical at 30MHz & 20W
- Withstands 20:1 Load VSWR

MAXIMUM RATINGS

I_C	4.5 A
V_{CB}	36 V
V_{CE}	18 V
V_{EB}	4.0 V
P_{DISS}	80 W @ $T_C = 25^\circ C$
T_J	$-65^\circ C$ to $+200^\circ C$
T_{STG}	$-65^\circ C$ to $+150^\circ C$
q_{JC}	$2.2^\circ C/W$

PACKAGE STYLE .380" 4L FLANGE

	MINIMUM Inches/mm	MAXIMUM Inches/mm
A	.220/5.59	.230/5.84
B	.785/19.94	
C	.720/18.29	.730/18.54
D	.970/24.64	.980/24.89
E		.385/9.78
F	.004/0.10	.006/0.15
G	.085/2.16	.105/2.67
H	.160/4.06	.180/4.57
I		.280/7.11
J	.240/6.10	.255/6.48

1 = COLLECTOR 2 = BASE
3 & 4 = EMITTER

CHARACTERISTICS $T_C = 25^\circ C$

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CBO}	$I_C = 50$ mA	36			V
BV_{CES}	$I_C = 50$ mA	36			V
BV_{CEO}	$I_C = 50$ mA	18			V
BV_{EBO}	$I_E = 5.0$ mA	4.0			V
I_{CES}	$V_{CE} = 15$ V			5	mA
h_{FE}	$V_{CE} = 5.0$ V $I_C = 1.0$ A	10		200	
C_{OB}	$V_{CB} = 12.5$ V $f = 1.0$ MHz		100		pF
G_{PE}	$V_{CC} = 12.5$ V $I_{CQ} = 25$ mA $P_{OUT} = 20$ W (PEP)	15	18		dB
IMD_3	$f = 30.000$ & 30.001 MHz	-30			dBc
h_c			55		%

