

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

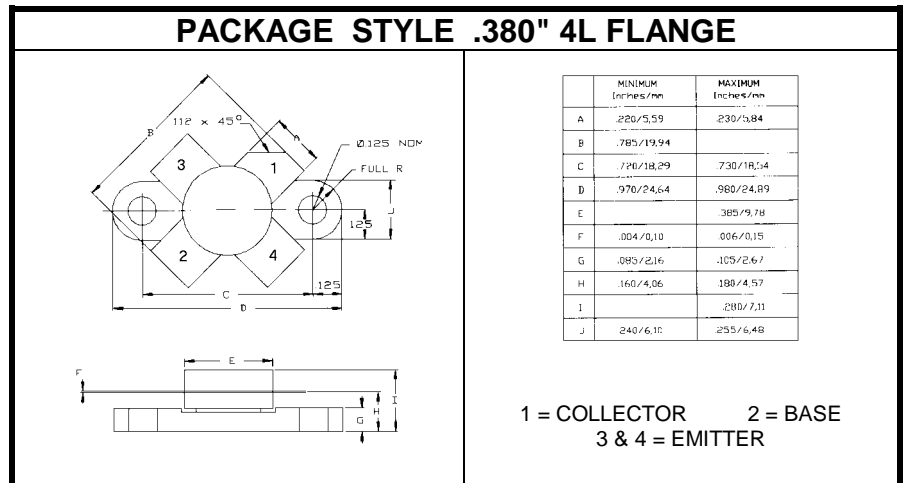
The **HF20-12F** is Designed for 12.5 V Class AB & C HF Power Amplifier Applications in the 2 to 32 MHz Band.

**FEATURES INCLUDE:**

- Replacement for **MRF433** & **SD1285**
- $P_G = 15$  dB Min. at 30MHz & 20W
- Emitter Ballasting for ruggedness and reliability.

**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 $+150^\circ C$
$\theta_{JC}$	2.2 $^\circ C/W$


**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
$G_{PE}$ $IMD_3$ $\eta_C$	$V_{CC} = 12.5$ V $I_{CQ} = 25$ mA $P_{OUT} = 20$ W (PEP) $f = 30.000$ & $30.001$ MHz	15	55	-30	dB dBc %