

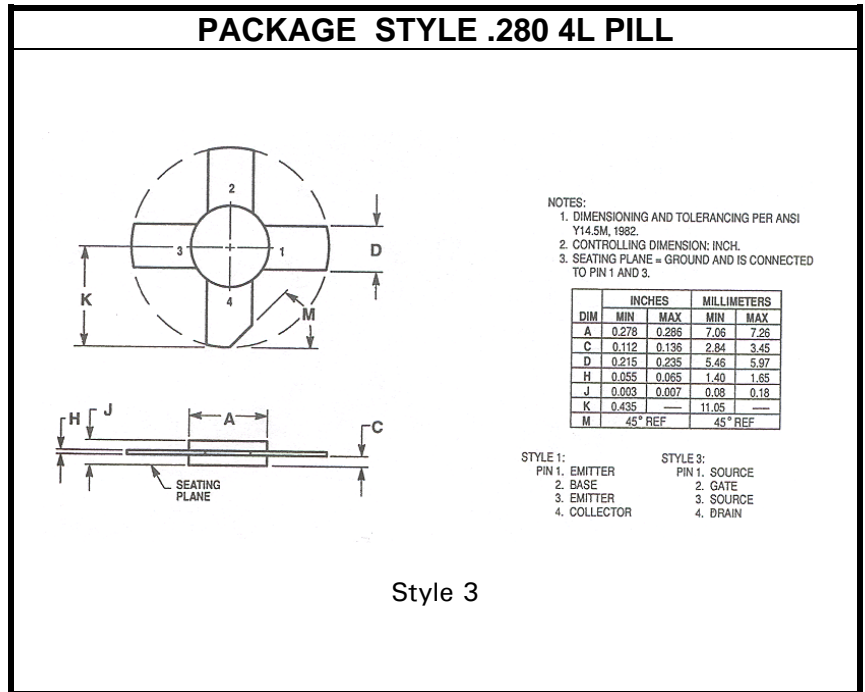
POWE FIELD EFFECT TRANSISTOR

DESCRIPTION:

The **MRF160** is an Enhancement-Mode N-Channel TMOS designed for wideband large-signal amplifier and oscillator applications to 500 MHz.

MAXIMUM RATINGS

I_D	0.5 mA
V_{DSS}	65 V
V_{GS}	± 40 V
P_{DISS}	8.0 W @ $T_C = 25^\circ\text{C}$
T_J	-65°C to $+200^\circ\text{C}$
T_{STG}	-65°C to $+150^\circ\text{C}$
θ_{JC}	13.2 $^\circ\text{C}/\text{W}$


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

SYMBOL	TEST CONDITIONS		MINIMUM	TYPICAL	MAXIMUM	UNITS
$V_{(BR)DSS}$	$I_D = 5.0$ mA	$V_{GS} = 0$ V	65			V
I_{DSS}	$V_{DSS} = 28$ V	$V_{GS} = 0$ V			0.5	mA
I_{GSS}	$V_{GS} = 40$ V	$V_{DS} = 0$ V			1.0	μA
$V_{GS(th)}$	$V_{DS} = 10$ V	$I_D = 10$ mA	1.0		6.0	V
g_{fs}	$V_{DS} = 10$ V	$I_D = 100$ mA	50			mmhos
C_{iss} C_{oss} C_{rss}	$V_{DS} = 28$ V	$V_{GS} = 0$ V		3.0 4.2 0.45		pF
NF	$V_{DS} = 28$ V $Z_S = 67.7 + j = 14.1$	$I_D = 100$ mA $Z_L = 14.5 + j = 25.7$		3.0		dB
G_{ps} η	$V_{DD} = 28$ V $P_{out} = 2.0$ W	$I_{DQ} = 100$ mA $f = 400$ MHz	16 45	20 55		dB %
ψ	$V_{DD} = 28$ V $V_{SWR} = 30:1$	$I_{DQ} = 100$ mA at all phase angles $f = 400$ MHz	NO DEGRADATION IN OUTPUT POWER			