ROHS Compliance, The RF MOSFET Line, Enhancement Mode

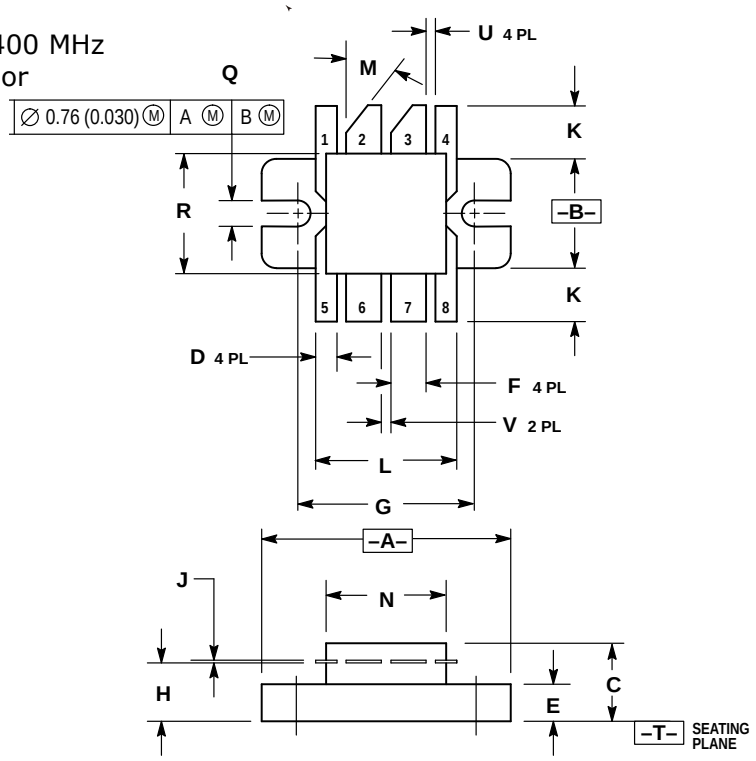
MRF177

Silicon MOS N-CHANNEL RF POWER TRANSISTOR

HG Semiconductors

DESCRIPTION

Designed for broadband applications up to 400 MHz frequency range. Primarily used as a driver or output amplifier in push-pulconfigurations.



FEATURES

- Output Power: 100 W
- Power Gain: 12 dB Typ@400M, 28V
- Efficiency: 60% Typ

DIMENSIONS

	MILLIMETERS		INCHES			MILLIMETERS		INCHES	
DIM	MIN	MAX	MIN	MAX	DIM	MIN	MAX	MIN	MAX
A	22.60	23.11	0.890	0.910	K	4.34	4.90	0.171	0.193
B	9.52	10.03	0.375	0.395	L	12.45	12.95	0.490	0.510
C	6.65	7.16	0.262	0.282	M	45° NOM		45° NOM	
D	1.60	1.95	0.063	0.077	N	1.051	11.02	0.414	0.434
E	2.94	3.40	0.116	0.134	Q	3.04	3.35	0.120	0.132
F	2.87	3.22	0.113	0.127	R	9.90	10.41	0.390	0.410
G	16.51 BSC		0.650 BSC		U	1.02	1.27	0.040	0.050
H	4.01	4.36	0.158	0.172	V	0.64	0.89	0.025	0.035
J	0.07	0.15	0.003	0.006					

MAXIMUM RATINGS

CHARACTERISTICS	SYMBOL	RATINGS	UNITS
Drain–Gate Voltage	V_{DSS}	65	V
Drain–Gate Voltage(RGS=1.0MΩ)	V_{DGR}	65	V
Gate–Source Voltage	V_{GS}	±40	V
Drain Current — Continuous	I_D	16	A
Total Device Dissipation	P_D	270	W
Junction Temperature	T_J	200	°C
Storage Temperature Range	T_{STG}	-65 to +150	°C

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
Drain–Source Breakdown Voltage	$V_{(BR)DSS}$	I_D=50mA,V_{GS}=0	65	-	-	V
Zero Gate Voltage Drain Current	I_{DSS}	V_{GS}=0V,V_{DS}=28V	-	-	2	mAdc
Gate–Source Leakage Current	I_{GSS}	V_{GS}=±20V,V_{DS}=0V	-	-	1	uAdc
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=10V,I_D=50mA	1.0	-	6.0	V
Forward Transconductance	gfs	V_{DS}=10V,I_D=2A	1.8	2.2	-	S
Input Capacitance	Ciss	V_{DS}=28V,V_{GS}=0V, f=1.0MHz	-	100	-	pF
Output Capacitance	Coss		-	105	-	pF
Reverse Transfer Capacitance	Crss		-	10	-	pF
Common Source Power Gain	G_P	V_{DD}=28V,P_{OUT}=100W, f=400MHz	10.0	12.0	-	dB
Drain Efficiency	η_D		55.0	60.0	-	%

Note : Above parameters , ratings , limits and conditions are subject to change.