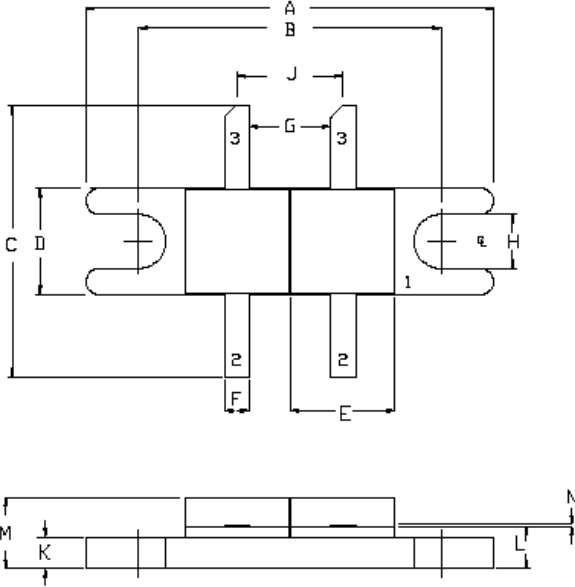


MECHANICAL DATA



GOLD METALLISED VDMOS RF FET 80W – 28V – 400MHz PUSH-PULL

FEATURES

- SUITABLE FOR BROAD BAND APPLICATIONS
- LOW C_{rss}
- HIGH GAIN – 13 dB TYPICAL at 400MHz
- GROSS LEAK QUALIFIED

APPLICATIONS

- VHF/UHF COMMUNICATIONS
from 1 MHz to 400MHz

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.970	0.980	24.64	24.89
B	0.720	0.730	18.29	18.54
C	0.630	0.670	16.00	17.01
D	0.250	0.260	6.35	6.60
E	0.245	0.255	6.22	6.48
F	0.055	0.065	1.40	1.65
G	0.189	0.199	4.80	5.05
H	0.125	0.135	3.17	3.43
J	0.249	0.259	6.32	6.58
K	0.070	0.080	1.78	2.03
L	0.095	0.105	2.41	2.67
M	0.180	0.190	4.57	4.82
N	0.003	0.006	0.08	0.15

PIN 1 SOURCE (COMMON) PIN 2 GATE
PIN 3 DRAIN

ABSOLUTE MAXIMUM RATINGS ($T_{case} = 25^{\circ}C$ unless otherwise stated)

P_D	Power Dissipation	233W
BV_{DSS}	Drain – Source Breakdown Voltage *	80V
BV_{GSS}	Gate – Source Breakdown Voltage *	$\pm 20V$
$I_{D(sat)}$	Drain Current *	12A
T_{stg}	Storage Temperature	-55 to $200^{\circ}C$
T_j	Maximum Operating Junction Temperature	$200^{\circ}C$

* Per Side

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ELECTRICAL CHARACTERISTICS (T_{case} = 25°C unless otherwise stated)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
PER SIDE					
B _V DSS	Drain–Source Breakdown Voltage V _{GS} = 0 I _D = 16mA	70			V
I _{DSS}	Zero Gate Voltage Drain Current V _{DS} = 28V V _{GS} = 0			0.1	mA
I _{GSS}	Gate Leakage Current V _{GS} = 20V V _{DS} = 0			80	μA
V _{GS(th)}	Gate Threshold Voltage* I _D = 40mA V _{DS} = V _{GS}	1.5		5	V
g _{fs}	Forward Transconductance* V _{DS} = 10V I _D = 2A	3.5			S
TOTAL DEVICE					
G _{PS}	Common Source Power Gain P _O = 40W	13			dB
η	Drain Efficiency V _{DS} = 28V I _{DQ} = 0.08A	60			%
VSWR	Load Mismatch Tolerance f = 400MHz	10:1			—
PER SIDE					
C _{iss}	Input Capacitance V _{DS} = 28V V _{GS} = 0V f = 1MHz			110	pF
C _{oss}	Output Capacitance V _{DS} = 28V V _{GS} = 0 f = 1MHz			53	pF
C _{rss}	Reverse Transfer Capacitance V _{DS} = 28V V _{GS} = 0 f = 1MHz			7	pF

* Pulse Test: Pulse Duration = 300 μs , Duty Cycle ≤ 2%

WARNING

Product and environmental safety - toxic materials

This product contains beryllium oxide. The product is entirely safe provided that the BeO base is not damaged. All persons who handle, use or dispose of this product should be aware of its nature and of the necessary safety precautions. After use, dispose of as chemical or special waste according to the regulations applying at the location of the user. It must never be thrown out with general or domestic waste.

THERMAL DATA

R _{THj-case}	Thermal Resistance Junction – Case	Max. 0.75°C / W
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