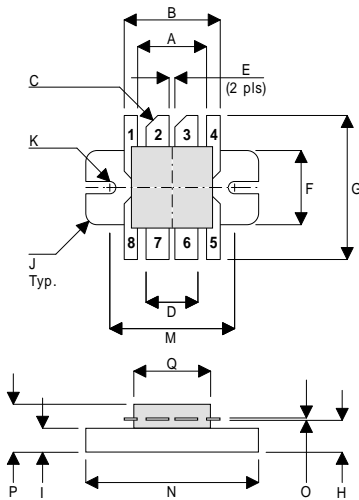


MECHANICAL DATA



DD

PIN 1	SOURCE (COMMON)	PIN 2	DRAIN 1
PIN 3	DRAIN 2	PIN 4	SOURCE (COMMON)
PIN 5	SOURCE (COMMON)	PIN 6	GATE 2
PIN 7	GATE 1	PIN 8	SOURCE (COMMON)

DIM	mm	Tol.	Inches	Tol.
A	9.14	0.13	0.360	0.005
B	12.70	0.13	0.500	0.005
C	45°	5°	45°	5°
D	6.86	0.13	0.270	0.005
E	0.76	0.13	0.030	0.005
F	9.78	0.13	0.385	0.005
G	19.05	0.25	0.750	0.010
H	4.19	0.13	0.165	0.005
I	3.17	0.13	0.125	0.005
J	1.52R	0.13	0.060R	0.005
K	1.65R	0.13	0.065R	0.005
M	16.51	0.13	0.650	0.005
N	22.86	0.13	0.900	0.005
O	0.13	0.02	0.005	0.001
P	6.35	0.64	0.250	0.025
Q	10.77	0.13	0.424	0.005

**GOLD METALLISED
MULTI-PURPOSE SILICON
DMOS RF FET
100W – 28V – 500MHz
PUSH-PULL**

FEATURES

- SIMPLIFIED AMPLIFIER DESIGN
- SUITABLE FOR BROAD BAND APPLICATIONS
- LOW C_{rss}
- SIMPLE BIAS CIRCUITS
- LOW NOISE
- HIGH GAIN – 10 dB MINIMUM

APPLICATIONS

- HF/VHF/UHF COMMUNICATIONS
from 1 MHz to 500 MHz

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

P_D	Power Dissipation	250W
BV_{DSS}	Drain – Source Breakdown Voltage *	70V
BV_{GSS}	Gate – Source Breakdown Voltage *	$\pm 20V$
$I_{D(sat)}$	Drain Current *	15A
T_{stg}	Storage Temperature	-65 to $150^{\circ}C$
T_j	Maximum Operating Junction Temperature	$200^{\circ}C$

* Per Side

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 = 100mA	70		V
I _D DSS	Zero Gate Voltage Drain Current	V _{DS} = 28V V _{GS} = 0		3	mA
I _G DSS	Gate Leakage Current	V _{GS} = 20V V _{DS} = 0		1	μA
V _{GS(th)}	Gate Threshold Voltage *	I _D = 10mA V _{DS} = V _{GS}	1	7	V
g _{fs}	Forward Transconductance *	V _{DS} = 10V I _D = 3A	2.4		S
TOTAL DEVICE					
G _{PS}	Common Source Power Gain	P _O = 100W	10		dB
η	Drain Efficiency	V _{DS} = 28V I _{DQ} = 1.2A	50		%
VSWR	Load Mismatch Tolerance	f = 500MHz	20:1		—
PER SIDE					
C _i SS	Input Capacitance	V _{DS} = 28V V _{GS} = -5V f = 1MHz		180	pF
C _o SS	Output Capacitance	V _{DS} = 28V V _{GS} = 0 f = 1MHz		90	pF
C _r SS	Reverse Transfer Capacitance	V _{DS} = 28V V _{GS} = 0 f = 1MHz		7.5	pF

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

HAZARDOUS MATERIAL WARNING

The ceramic portion of the device between leads and metal flange is beryllium oxide. Beryllium oxide dust is highly toxic and care must be taken during handling and mounting to avoid damage to this area.

THESE DEVICES MUST NEVER BE THROWN AWAY WITH GENERAL INDUSTRIAL OR DOMESTIC WASTE.

THERMAL DATA

R _{THj-case}	Thermal Resistance Junction – Case	Max. 0.7°C / W
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