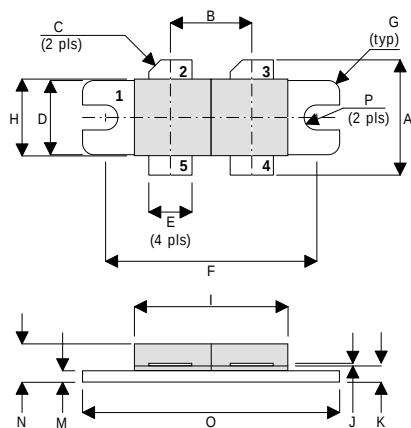


MECHANICAL DATA



DR

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

DIM	Millimetres	Tol.	Inches	Tol.
A	15.24	0.50	0.600	0.020
B	10.77	0.13	0.424	0.005
C	45°	5°	45°	5°
D	9.78	0.13	0.385	0.005
E	5.71	0.13	0.225	0.005
F	27.94	0.13	1.100	0.005
G	1.52R	0.13	0.060R	0.005
H	10.16	0.13	0.400	0.005
I	22.22	MAX	0.875	MAX
J	0.13	0.02	0.005	0.001
K	2.54	0.13	0.100	0.005
M	1.52	0.13	0.060	0.005
N	5.08	0.50	0.200	0.020
O	34.03	0.13	1.340	0.005
P	1.57R	0.08	0.062R	0.003

GOLD METALLISED MULTI-PURPOSE SILICON DMOS RF FET 125W – 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 400 MHz

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

P_D	Power Dissipation	350W
BV_{DSS}	Drain – Source Breakdown Voltage *	70V
BV_{GSS}	Gate – Source Breakdown Voltage *	$\pm 20V$
$I_{D(sat)}$	Drain Current *	20A
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					
BV _{DSS}	Drain–Source Breakdown Voltage V _{GS} = 0 I _D = 100mA	70			V
I _{DSS}	Zero Gate Voltage Drain Current V _{DS} = 28V V _{GS} = 0			4	mA
I _{GSS}	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 = 5A	3.2			S
TOTAL DEVICE					
G _{PS}	Common Source Power Gain P _O = 125W	10			dB
η	Drain Efficiency V _{DS} = 28V I _{DQ} = 2A	50			%
VSWR	Load Mismatch Tolerance f = 400MHz	20:1			—
PER SIDE					
C _{iss}	Input Capacitance V _{DS} = 0 V _{GS} = –5V f = 1MHz			240	pF
C _{oss}	Output Capacitance V _{DS} = 28V V _{GS} = 0 f = 1MHz			120	pF
C _{rss}	Reverse Transfer Capacitance V _{DS} = 28V V _{GS} = 0 f = 1MHz			10	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. 0.5°C / W
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