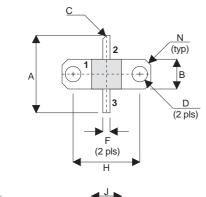
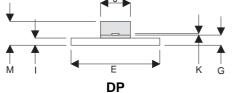


D1202UK

ROHS COMPLIANT METAL GATE RF SILICON FET

MECHANICAL DATA





PIN 2

DRAIN

PIN 1 SOURCE

PIN₃ **GATE**

DIM	mm	Tol.	Inches	Tol.	
Α	16.51	0.25	0.650	0.010	
В	6.35	0.13	0.250	0.005	
С	45°	5° 45°		5°	
D	3.30	0.13	0.130	0.005	
E	18.92	0.08	0.745	0.003	
F	1.52	0.13	0.060	0.005	
G	2.16	0.13	0.085	0.005	
Н	14.22	0.08	0.560	0.003	
I	1.52	0.13	0.060	0.005	
J	6.35	0.13	0.250	0.005	
K	0.13	0.03	0.005	0.001	
M	5.08	0.51	0.200	0.020	
N	1.27 x 45°	0.13	0.050 x 45°	0.005	

GOLD METALLISED MULTI-PURPOSE SILICON DMOS RF FET 20W - 12.5V - 400MHzSINGLE ENDED

FEATURES

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

APPLICATIONS

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

ABSOLUTE MAXIMUM RATINGS (T_{case} = 25°C unless otherwise stated)

P_{D}	Power Dissipation	87W
BV_DSS	Drain – Source Breakdown Voltage	40V
BV_GSS	Gate – Source Breakdown Voltage	±20V
I _{D(sat)}	Drain Current	20A
T _{stg}	Storage Temperature	−65 to 150°C
T _j	Maximum Operating Junction Temperature	200°C

Semelab PIc reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by Semelab is believed to be both accurate and reliable at the time of going to press. However Semelab assumes no responsibility for any errors or omissions discovered in its use. Semelab encourages customers to verify that datasheets are current before placing orders.

E-mail: sales@semelab.co.uk

Semelab plc. Telephone +44(0)1455 556565. Fax +44(0)1455 552612.

Website: http://www.semelab.co.uk



D1202UK

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

Parameter		Test Conditions		Min.	Тур.	Max.	Unit
RV	Drain-Source	V _{GS} = 0	I _D = 100mA	40			V
BV _{DSS}	Breakdown Voltage	VGS = 0	ID = 100IIIA	40			v
I _{DSS}	Zero Gate Voltage	\/ 12.5\/				1	mA
	Drain Current	$V_{DS} = 12.5V$	$V_{GS} = 0$			I	IIIA
I _{GSS}	Gate Leakage Current	$V_{GS} = 20V$	$V_{DS} = 0$			1	μΑ
V _{GS(th)}	Gate Threshold Voltage*	I _D = 10mA	$V_{DS} = V_{GS}$	1		7	V
9 _{fs}	Forward Transconductance*	V _{DS} = 10V	I _D = 2A	1.6			S
G _{PS}	Common Source Power Gain	P _O = 20W		10			dB
η	Drain Efficiency	$V_{DS} = 12.5V$	$I_{DQ} = 0.4A$	50			%
VSWR	Load Mismatch Tolerance	f = 400MHz		20:1			_
C _{iss}	Input Capacitance	$V_{DS} = 0$ V_0	_{GS} = –5V f = 1MHz			120	pF
C _{oss}	Output Capacitance	$V_{DS} = 12.5V V_0$	GS = 0 $f = 1MHz$			80	pF
C _{rss}	Reverse Transfer Capacitance	$V_{DS} = 12.5V V_0$	GS = 0 $f = 1MHz$			8	pF

^{*} Pulse Test: Pulse Duration = 300 μ s , Duty Cycle \leq 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. 2.0°C / W
-----------------------	------------------------------------	----------------

Semelab Plc reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by Semelab is believed to be both accurate and reliable at the time of going to press. However Semelab assumes no responsibility for any errors or omissions discovered in its use. Semelab encourages customers to verify that datasheets are current before placing orders.

E-mail: sales@semelab.co.uk

Semelab plc. Telephone +44(0)1455 556565. Fax +44(0)1455 552612.

Website: http://www.semelab.co.uk