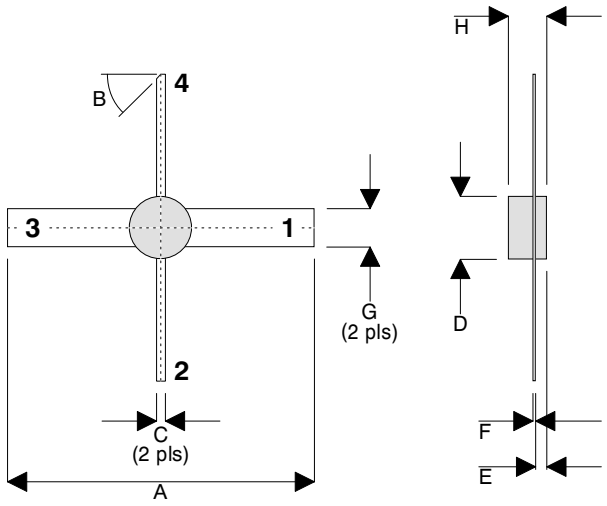
D2089UK

ROHS COMPLIANT METAL GATE RF SILICON FET

MECHANICAL DATA



PIN 1 SOURCE PIN 2 GATE

PIN 3 SOURCE PIN 4 DRAIN

DIM	Millimetres	Tol.	Inches	Tol.
A	25.40	0.25	1.00	0.010
B	45°	5°	45°	5°
C	0.76	0.05	0.030	0.002
D	5.21 DIA	0.13	0.205	0.005
E	1.02	0.13	0.040	0.005
F	0.13	0.02	0.005	0.001
G	3.18	0.13	0.125	0.005
H	3.18	REF	0.125	REF

GOLD METALLISED MULTI-PURPOSE SILICON DMOS RF FET 1W – 28V – 2GHz SINGLE ENDED

FEATURES

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

APPLICATIONS

- HF/VHF/UHF COMMUNICATIONS from DC to 2 GHz

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

P_D	Power Dissipation	4W
BV_{DSS}	Drain – Source Breakdown Voltage	65V
BV_{GSS}	Gate – Source Breakdown Voltage	±20V
$I_{D(sat)}$	Drain Current	1A
T_{stg}	Storage Temperature	–65 to 150°C
T_j	Maximum Operating Junction Temperature	200°C

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

Parameter		Test Conditions		Min.	Typ.	Max.	Unit
BV_{DSS}	Drain–Source Breakdown Voltage	V_{GS} = 0	I_D = 10mA	65			V
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS} = 28V	V_{GS} = 0			1	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 = 0.2A	0.18			mhos
P_{out}	Power Output	V_{DS} = 28V f = 30MHz	I_{DQ} = 75mA P_{in} = 5mW	750			mW
C_{iss}	Input Capacitance	V_{DS} = 0V	V_{GS} = –5V f = 1MHz			12	pF
C_{oss}	Output Capacitance	V_{DS} = 28V	V_{GS} = 0 f = 1MHz			6	
C_{rss}	Reverse Transfer Capacitance					0.5	

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

THERMAL DATA

$R_{THj–case}$	Thermal Resistance Junction – Case	Max. 30°C / W