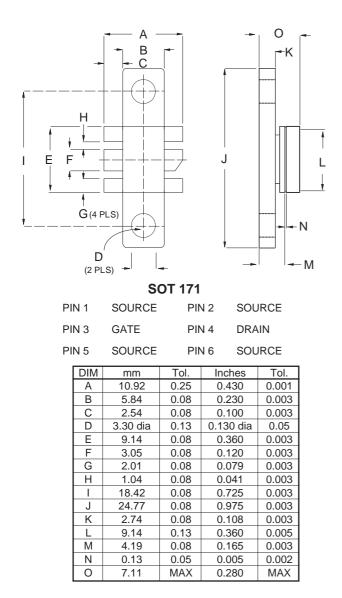
TetraFET

D2015UK



ROHS COMPLIANT METAL GATE RF SILICON FET

MECHANICAL DATA



GOLD METALLISED MULTI-PURPOSE SILICON DMOS RF FET 5W – 28V – 500MHz SINGLE ENDED

FEATURES

- SIMPLIFIED AMPLIFIER DESIGN
- SUITABLE FOR BROAD BAND APPLICATIONS
- LOW C_{rss}
- SIMPLE BIAS CIRCUITS
- LOW NOISE
- HIGH GAIN 13 dB MINIMUM

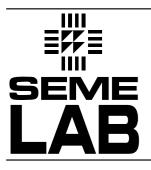
APPLICATIONS

• VHF/UHF COMMUNICATIONS from DC to 2 GHz

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

P_	Power Dissipation	29W
P _D	•	-
BV _{DSS}	Drain – Source Breakdown Voltage	65V
BV _{GSS}	Gate – Source Breakdown Voltage	±20V
I _{D(sat)}	Drain Current	2A
T _{stg}	Storage Temperature	–65 to 150°C
Tj	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.



Parameter		Test Conditions			Min.	Тур.	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			2	mA
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 =	I _D = 0.4A				S
G _{PS}	Common Source Power Gain	P _O = 5W			13			dB
η	Drain Efficiency	V _{DS} = 28V	I _{DQ}	= 0.2A	40			%
VSWR	Load Mismatch Tolerance	f = 500MH	z		20:1			_
C _{iss}	Input Capacitance	$V_{DS} = 0$	$V_{GS} = -5V$	f = 1MHz			20	pF
C _{oss}	Output Capacitance	V _{DS} = 28V	$V_{GS} = 0$	f = 1MHz			11	pF
C _{rss}	Reverse Transfer Capacitance	V _{DS} = 28V	$V_{GS} = 0$	f = 1MHz			1	pF

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

* Pulse Test: Pulse Duration = $300 \ \mu s$, 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. 6.0°C / W

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