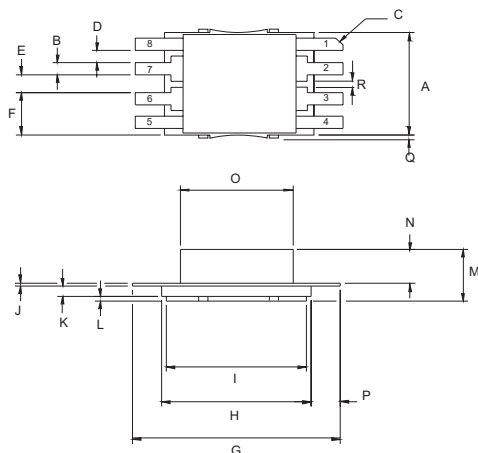


MECHANICAL DATA



DBC4 Package

PIN 1 Source (Common) PIN 5 Source (Common)
 PIN 2 Drain 1 PIN 6 Gate 2
 PIN 3 Drain 2 PIN 7 Gate 1
 PIN 4 Source (Common) PIN 8 Source (Common)

DIM	mm	Tol.	Inches	Tol.
A	6.47	0.08	.255	.003
B	0.76	0.08	.030	.003
C	45°	5°	45°	5°
D	0.76	0.08	.030	.003
E	1.14	0.08	.045	.003
F	2.67	0.08	.105	.003
G	11.73	0.13	.462	.005
H	8.43	0.08	.332	.003
I	7.92	0.08	.312	.003
J	0.20	0.02	.008	.001
K	0.64	0.02	.025	.001
L	0.30	0.02	.012	.001
M	3.25	0.08	.128	.003
N	2.11	0.08	.083	.003
O	6.35SQ	0.08	.250SQ	.003
P	1.65	0.51	.065	.020
Q	0.13	max	.005	max
R	0.25	0.07	0.010	.003

**GOLD METALLISED
 MULTI-PURPOSE SILICON
 DMOS RF FET
 20W – 12.5V – 1GHz
 PUSH-PULL**

FEATURES

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

APPLICATIONS

- VHF/UHF COMMUNICATIONS
 from 1MHz to 1 GHz

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

P_D	Power Dissipation	70W
BV_{DSS}	Drain – Source Breakdown Voltage *	40V
BV_{GSS}	Gate – Source Breakdown Voltage *	$\pm 20V$
$I_{D(sat)}$	Drain Current *	8A
T_{stg}	Storage Temperature	-65 to 150°C
T_j	Maximum Operating Junction Temperature	200°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 = 10mA	40		V
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 12.5V V _{GS} = 0		4	mA
I _{GSS}	Gate Leakage Current	V _{GS} = 20V V _{DS} = 0		4	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 = 0.8A	0.72		S
TOTAL DEVICE					
G _{PS}	Common Source Power Gain	P _O = 20W	10		dB
η	Drain Efficiency	V _{DS} = 12.5V I _{DQ} = 0.8A	40		%
V _{SWR}	Load Mismatch Tolerance	f = 1GHz	20:1		—
PER SIDE					
C _{iss}	Input Capacitance	V _{DS} = 12.5V V _{GS} = -5V f = 1MHz		48	pF
C _{oss}	Output Capacitance	V _{DS} = 12.5V V _{GS} = 0 f = 1MHz		40	pF
C _{rss}	Reverse Transfer Capacitance	V _{DS} = 12.5V V _{GS} = 0 f = 1MHz		4	pF

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

THERMAL DATA

R _{THj-case}	Thermal Resistance Junction – Case	Max. 2.5°C / W
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