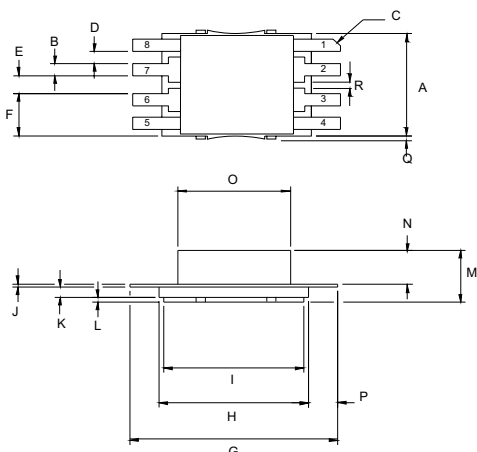


MECHANICAL DATA



**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  
10W – 28V – 1GHz  
PUSH-PULL**

**FEATURES**

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

**APPLICATIONS**

- HF/VHF/UHF COMMUNICATIONS  
from 1MHz to 1 GHz

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

$P_D$	Power Dissipation	29W
$BV_{DSS}$	Drain – Source Breakdown Voltage *	65V
$BV_{GSS}$	Gate – Source Breakdown Voltage *	$\pm 20V$
$I_{D(sat)}$	Drain Current *	2A
$T_{stg}$	Storage Temperature	$-65$ to $150^{\circ}C$
$T_j$	Maximum Operating Junction Temperature	$200^{\circ}C$

\* Per Side

## ELECTRICAL CHARACTERISTICS (T<sub>case</sub> = 25°C unless otherwise stated)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
<b>PER SIDE</b>					
B <sub>V</sub> DSS	Drain–Source Breakdown Voltage	V <sub>GS</sub> = 0	I <sub>D</sub> = 10mA	65	V
I <sub>D</sub> DSS	Zero Gate Voltage Drain Current	V <sub>DS</sub> = 28V	V <sub>GS</sub> = 0	2	mA
I <sub>G</sub> DSS	Gate Leakage Current	V <sub>GS</sub> = 20V	V <sub>DS</sub> = 0	2	μA
V <sub>GS(th)</sub>	Gate Threshold Voltage *	I <sub>D</sub> = 10mA	V <sub>DS</sub> = V <sub>GS</sub>	1	V
g <sub>fs</sub>	Forward Transconductance *	V <sub>DS</sub> = 10V	I <sub>D</sub> = 0.4A	0.36	S
<b>TOTAL DEVICE</b>					
G <sub>PS</sub>	Common Source Power Gain	P <sub>O</sub> = 10W		13	dB
η	Drain Efficiency	V <sub>DS</sub> = 28V	I <sub>DQ</sub> = 0.4A	40	%
VSWR	Load Mismatch Tolerance	f = 1GHz		20:1	—
<b>PER SIDE</b>					
C <sub>iss</sub>	Input Capacitance	V <sub>DS</sub> = 0V	V <sub>GS</sub> = -5V f = 1MHz		24 pF
C <sub>oss</sub>	Output Capacitance	V <sub>DS</sub> = 28V	V <sub>GS</sub> = 0 f = 1MHz		12 pF
C <sub>rss</sub>	Reverse Transfer Capacitance	V <sub>DS</sub> = 28V	V <sub>GS</sub> = 0 f = 1MHz		1 pF

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

## THERMAL DATA

R <sub>THj-case</sub>	Thermal Resistance Junction – Case	Max. 6.0°C / W
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