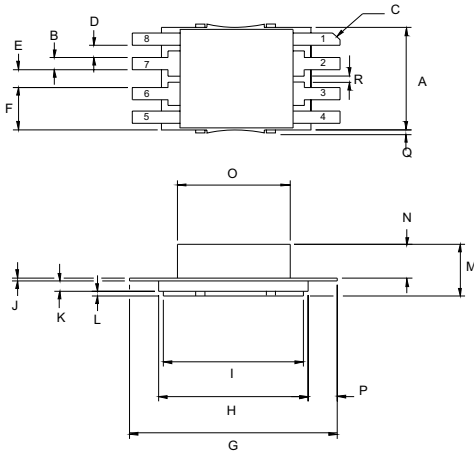


MECHANICAL DATA



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
5W – 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	15W
BV_{DSS}	Drain – Source Breakdown Voltage *	40V
BV_{GSS}	Gate – Source Breakdown Voltage *	$\pm 20V$
$I_{D(sat)}$	Drain Current *	2A
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	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	S	
TOTAL DEVICE						
G _{PS}	Common Source Power Gain	P _O = 5W		10	dB	
η	Drain Efficiency	V _{DS} = 12.5V	I _{DQ} = 0.2A	40	%	
V _{SWR}	Load Mismatch Tolerance	f = 1GHz		20:1	—	
PER SIDE						
C _{iss}	Input Capacitance	V _{DS} = 0	V _{GS} = -5V f = 1MHz		12	pF
C _{oss}	Output Capacitance	V _{DS} = 12.5V	V _{GS} = 0 f = 1MHz		10	pF
C _{rss}	Reverse Transfer Capacitance	V _{DS} = 12.5V	V _{GS} = 0 f = 1MHz		1	pF

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

THERMAL DATA

R _{THj-case}	Thermal Resistance Junction – Case	Max. 12.0°C / W
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