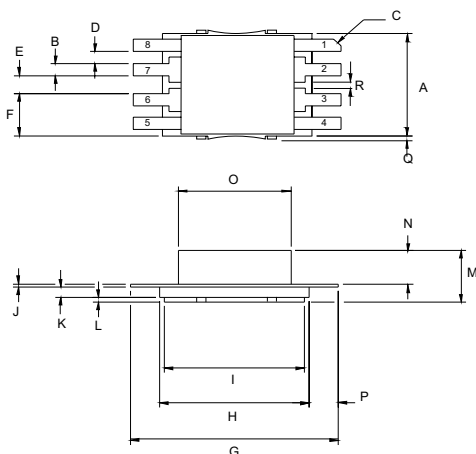


MECHANICAL DATA



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 – 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

- VHF/UHF COMMUNICATIONS  
from 1 MHz 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 *	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

\* Per Side

**ELECTRICAL CHARACTERISTICS** ( $T_{case} = 25^{\circ}\text{C}$  unless otherwise stated)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit	
<b>PER SIDE</b>						
$BV_{DSS}$	Drain–Source Breakdown Voltage	$V_{GS} = 0$	$I_D = 10\text{mA}$	65	V	
$I_{DSS}$	Zero Gate Voltage Drain Current	$V_{DS} = 28\text{V}$	$V_{GS} = 0$	1	mA	
$I_{GSS}$	Gate Leakage Current	$V_{GS} = 20\text{V}$	$V_{DS} = 0$	1	$\mu\text{A}$	
$V_{GS(th)}$	Gate Threshold Voltage*	$I_D = 10\text{mA}$	$V_{DS} = V_{GS}$	1	7	V
$g_{fs}$	Forward Transconductance*	$V_{DS} = 10\text{V}$	$I_D = 0.2\text{A}$	0.18	S	
<b>TOTAL DEVICE</b>						
$G_{PS}$	Common Source Power Gain	$P_O = 5\text{W}$		13	dB	
$\eta$	Drain Efficiency	$V_{DS} = 28\text{V}$	$I_{DQ} = 0.2\text{A}$	40	%	
VSWR	Load Mismatch Tolerance	$f = 1\text{GHz}$		20:1	—	
<b>PER SIDE</b>						
$C_{iss}$	Input Capacitance	$V_{DS} = 28\text{V}$	$V_{GS} = -5\text{V}$	$f = 1\text{MHz}$	12	pF
$C_{oss}$	Output Capacitance	$V_{DS} = 28\text{V}$	$V_{GS} = 0$	$f = 1\text{MHz}$	6	pF
$C_{rss}$	Reverse Transfer Capacitance	$V_{DS} = 28\text{V}$	$V_{GS} = 0$	$f = 1\text{MHz}$	0.5	pF

\* Pulse Test: Pulse Duration = 300  $\mu\text{s}$  , Duty Cycle  $\leq 2\%$

**THERMAL DATA**

$R_{THj-case}$	Thermal Resistance Junction – Case	Max. 12 $^{\circ}\text{C} / \text{W}$
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