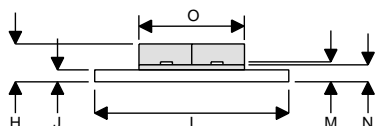
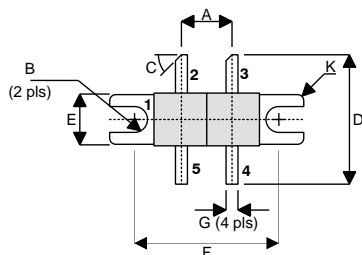


MECHANICAL DATA

**GOLD METALLISED
MULTI-PURPOSE SILICON
DMOS RF FET
80W – 50V – 400MHz
PUSH-PULL**



DK

PIN 1 SOURCE (COMMON) PIN 2 DRAIN 1
PIN 3 DRAIN 2 PIN 4 GATE 2
PIN 5 GATE 1

DIM	mm	Tol.	Inches	Tol.
A	6.45	0.13	0.254	0.005
B	1.65R	0.13	0.065R	0.005
C	45°	5°	45°	5°
D	16.51	0.76	0.650	0.03
E	6.47	0.13	0.255	0.005
F	18.41	0.13	0.725	0.005
G	1.52	0.13	0.060	0.005
H	4.82	0.25	0.190	0.010
I	24.76	0.13	0.975	0.005
J	1.52	0.13	0.060	0.005
K	0.81R	0.13	0.032R	0.005
M	0.13	0.02	0.005	0.001
N	2.16	0.13	0.085	0.005

FEATURES

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

APPLICATIONS

- HF/VHF/UHF COMMUNICATIONS
from 1 MHz to 500 MHz

P_D	Power Dissipation	175W
BV_{DSS}	Drain – Source Breakdown Voltage *	125V
BV_{GSS}	Gate – Source Breakdown Voltage *	±20V
$I_{D(sat)}$	Drain Current *	6A
T_{stg}	Storage Temperature	–65 to 150°C
T_j	Maximum Operating Junction Temperature	200°C

* Per Side

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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 = 100mA	125			V
I _{DSS}	Zero Gate Voltage Drain Current V _{DS} = 50V V _{GS} = 0			2	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 = 1A	1.6			S
TOTAL DEVICE					
G _{PS}	Common Source Power Gain P _O = 80W	13			dB
η	Drain Efficiency V _{DS} = 50V I _{DQ} = 0.4A	50			%
VSWR	Load Mismatch Tolerance f = 400MHz	20:1			—
PER SIDE					
C _{iss}	Input Capacitance V _{DS} = 50V V _{GS} = -5V f = 1MHz			120	pF
C _{oss}	Output Capacitance V _{DS} = 50V V _{GS} = 0 f = 1MHz			60	pF
C _{rss}	Reverse Transfer Capacitance V _{DS} = 50V V _{GS} = 0 f = 1MHz			3	pF

* Pulse Test: Pulse Duration = 300 μs , Duty Cycle ≤ 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. 1°C / W
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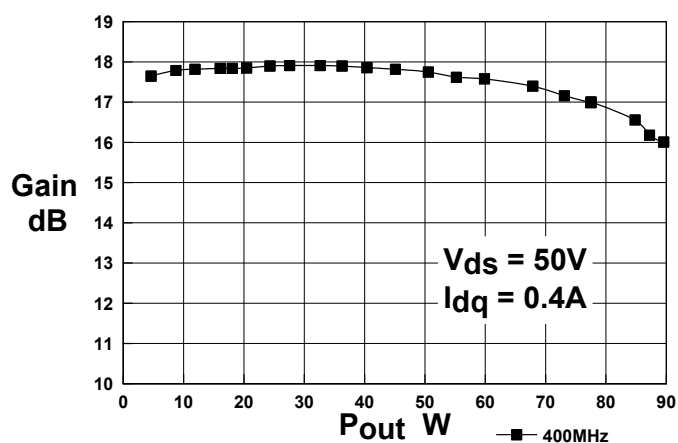


Figure 1 – Gain vs. Output Power.

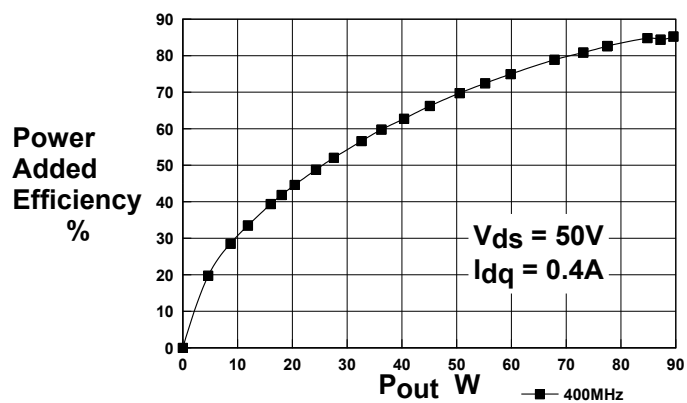


Figure 2 – Efficiency vs. Output Power.

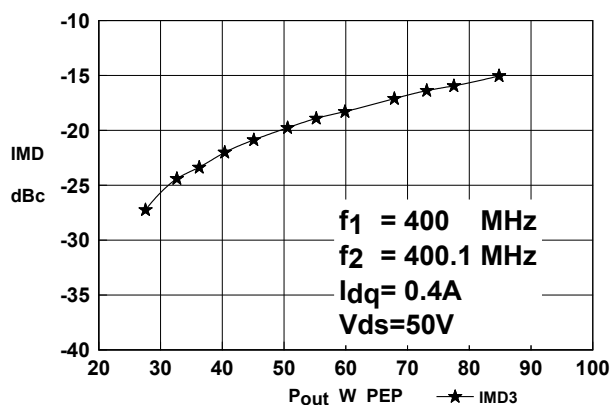


Figure 3 – IMD vs. Output Power.

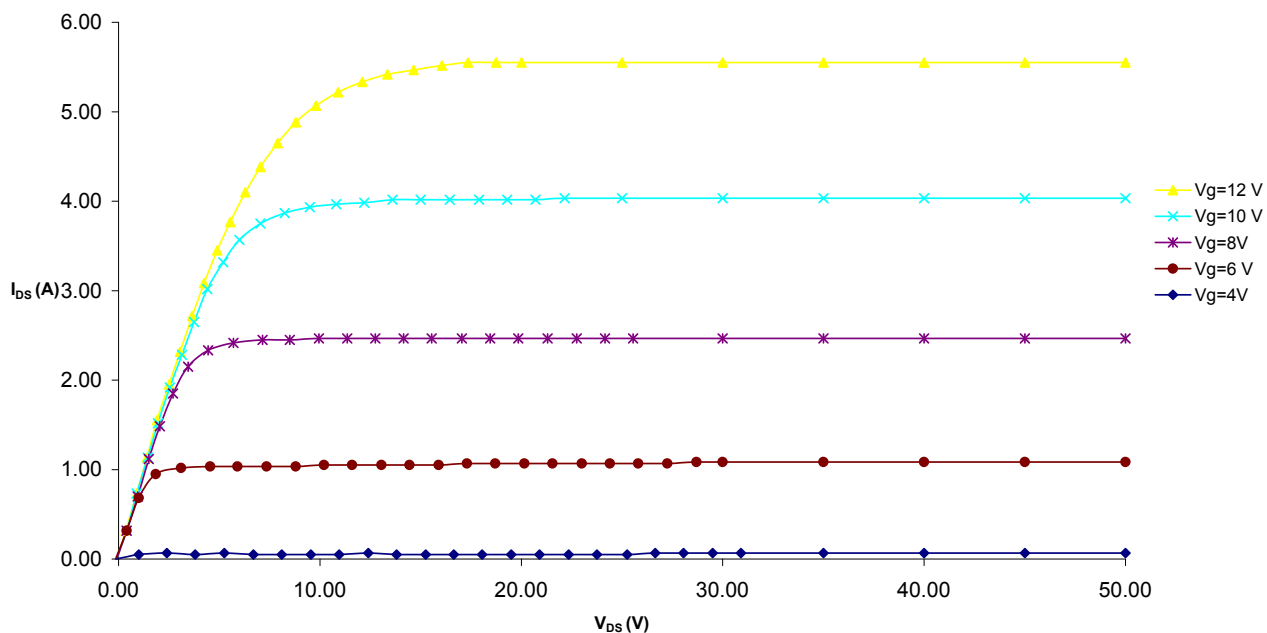


Figure 4 – Typical IV Characteristics.

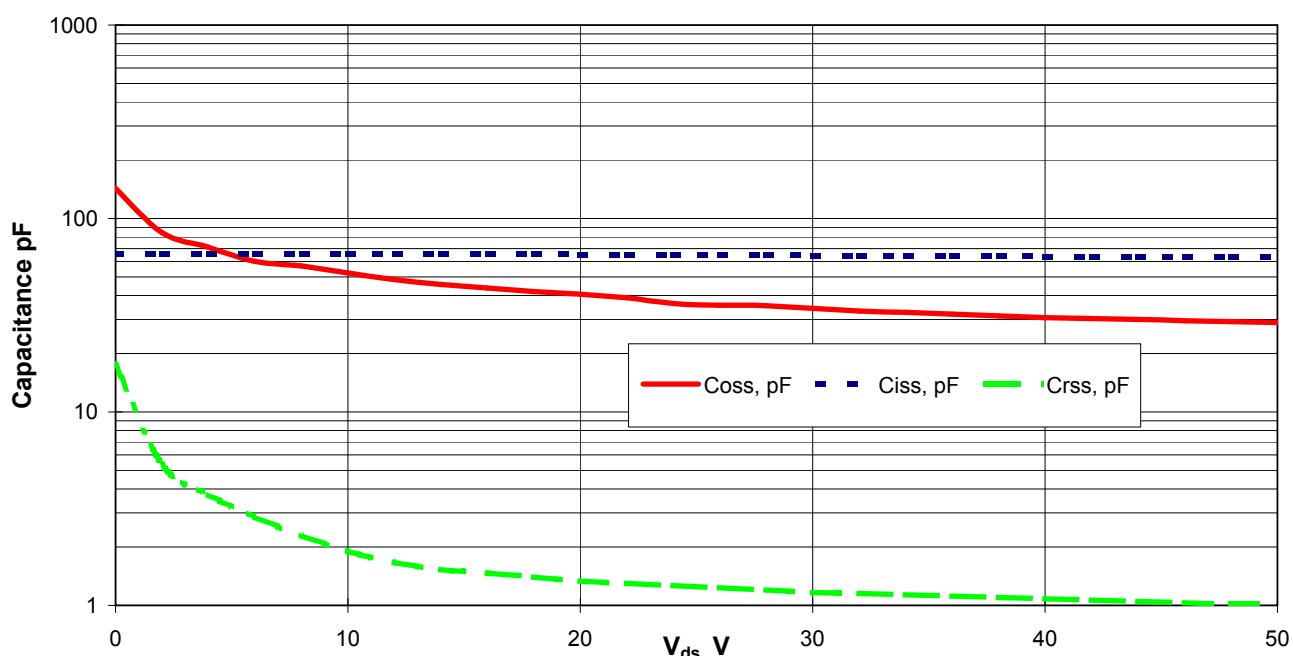


Figure 5 – Typical CV Characteristics.

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