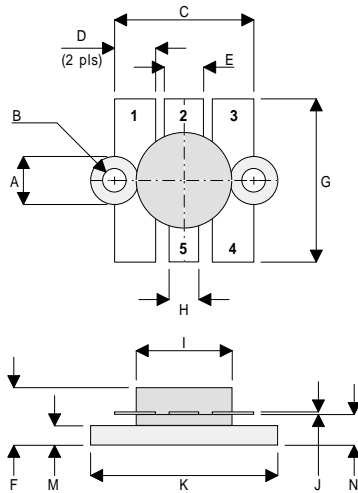


MECHANICAL DATA



DT

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

DIM	mm	Tol.	Inches	Tol.
A	6.35 DIA	0.13	0.250 DIA	0.005
B	3.17 DIA	0.13	0.125 DIA	0.005
C	18.41	0.25	0.725	0.010
D	5.46	0.13	0.215	0.005
E	5.21	0.13	0.205	0.005
F	7.62	MAX	0.300	MAX
G	21.59	0.38	0.850	0.015
H	3.94	0.13	0.155	0.005
I	12.70	0.13	0.500	0.005
J	0.13	0.03	0.005	0.001
K	24.76	0.13	0.975	0.005
M	2.59	0.13	0.102	0.005
N	4.06	0.25	0.160	0.010

**GOLD METALLISED  
 MULTI-PURPOSE SILICON  
 DMOS RF FET  
 60W – 12.5V – 175MHz  
 SINGLE ENDED**

FEATURES

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

APPLICATIONS

- HF/VHF/UHF COMMUNICATIONS  
 from 1 MHz to 175 MHz

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

$P_D$	Power Dissipation	175W
$BV_{DSS}$	Drain – Source Breakdown Voltage	40V
$BV_{GSS}$	Gate – Source Breakdown Voltage	$\pm 20V$
$I_{D(sat)}$	Drain Current	40A
$T_{stg}$	Storage Temperature	$-65$ to $150^{\circ}C$
$T_j$	Maximum Operating Junction Temperature	$200^{\circ}C$

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

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
B <sub>V</sub> DSS Drain–Source Breakdown Voltage	V <sub>GS</sub> = 0 I <sub>D</sub> = 100mA	40			V
I <sub>D</sub> DSS Zero Gate Voltage Drain Current	V <sub>DS</sub> = 12.5V V <sub>GS</sub> = 0			4	mA
I <sub>G</sub> DSS Gate Leakage Current	V <sub>GS</sub> = 20V V <sub>DS</sub> = 0			1	μA
V <sub>GS(th)</sub> Gate Threshold Voltage *	I <sub>D</sub> = 10mA V <sub>DS</sub> = V <sub>GS</sub>	0.5		7	V
g <sub>fs</sub> Forward Transconductance *	V <sub>DS</sub> = 10V I <sub>D</sub> = 4A	3.2			S
G <sub>PS</sub> Common Source Power Gain	P <sub>O</sub> = 60W	10			dB
η Drain Efficiency	V <sub>DS</sub> = 12.5V I <sub>DQ</sub> = 0.4A	50			%
VSWR Load Mismatch Tolerance	f = 175MHz	20:1			—
C <sub>i</sub> SS Input Capacitance	V <sub>DS</sub> = 0 V <sub>GS</sub> = -5V f = 1MHz			240	pF
C <sub>o</sub> SS Output Capacitance	V <sub>DS</sub> = 12.5V V <sub>GS</sub> = 0 f = 1MHz			180	pF
C <sub>r</sub> SS Reverse Transfer Capacitance	V <sub>DS</sub> = 12.5V V <sub>GS</sub> = 0 f = 1MHz			16	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 <sub>THj-case</sub>	Thermal Resistance Junction – Case	Max. 1.0°C / W
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