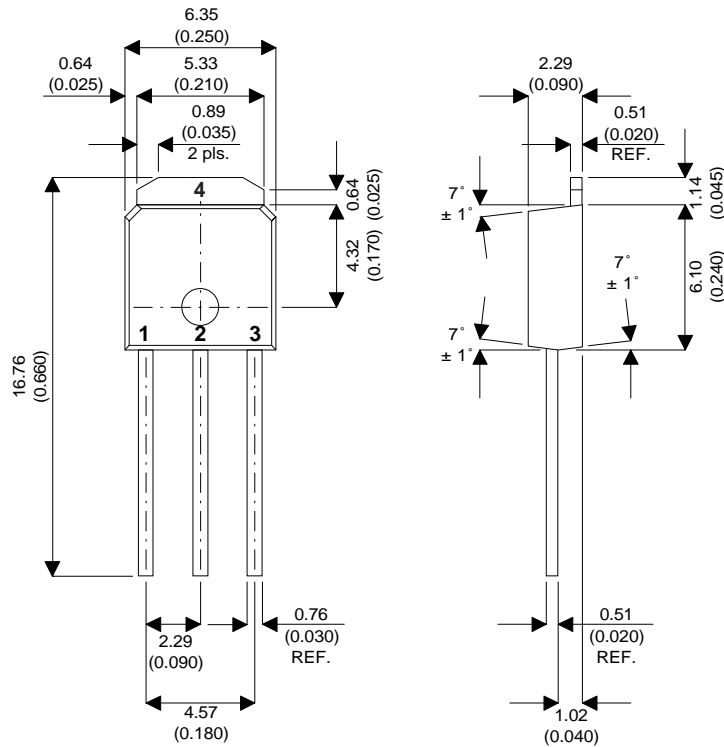


**MECHANICAL DATA**

Dimensions in mm (inches)



**TO-251 PACKAGE**

PIN 1 – GATE                      PIN 2 – DRAIN  
 PIN 3 – SOURCE                PIN 4 – DRAIN

**GOLD METALLISED  
 MULTI-PURPOSE SILICON  
 DMOS RF FET  
 4W – 28V – 200MHz  
 SINGLE ENDED**

**FEATURES**

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

**APPLICATIONS**

- LOW COST DC to 200 MHz

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

$P_D$	Power Dissipation	62.5W
$BV_{DSS}$	Drain – Source Breakdown Voltage	70V
$BV_{GSS}$	Gate – Source Breakdown Voltage	$\pm 20V$
$I_{D(sat)}$	Drain Current	5A
$T_{STG}$	Storage Temperature	$-65$ to $125^\circ\text{C}$
$T_J$	Maximum Operating Junction Temperature	$150^\circ\text{C}$

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

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
BV <sub>DSS</sub> Drain-Source Breakdown Voltage	V <sub>GS</sub> = 0 I <sub>D</sub> = 10mA	70			V
I <sub>DSS</sub> Zero Gate Voltage Drain Current	V <sub>DS</sub> = 28V V <sub>GS</sub> = 0			1	mA
I <sub>GSS</sub> 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>	1		7	V
g <sub>fs</sub> Forward Transconductance*	V <sub>DS</sub> = 10V I <sub>D</sub> = 1A	0.8			S
G <sub>PS</sub> Common Source Power Gain	V <sub>DS</sub> = 28V I <sub>DQ</sub> = 0.1A P <sub>O</sub> = 4W f = 200MHz	13			dB
η Drain Efficiency		40			%
VSWR Load Mismatch Tolerance		20:1			—
C <sub>iss</sub> Input Capacitance	V <sub>DS</sub> = 0V V <sub>GS</sub> = -5V f = 1MHz			60	pF
C <sub>oss</sub> Output Capacitance	V <sub>DS</sub> = 28V V <sub>GS</sub> = 0 f = 1MHz			30	
C <sub>rss</sub> Reverse Transfer Capacitance	V <sub>DS</sub> = 28V V <sub>GS</sub> = 0 f = 1MHz			2.5	

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

## THERMAL DATA

R <sub>THj-case</sub>	Thermal Resistance Junction – Case	Max. 2°C / W
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