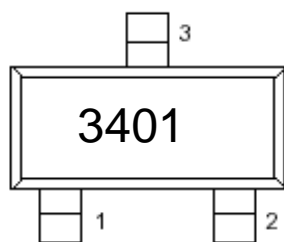


MOSFET

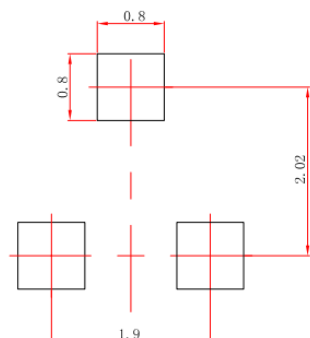
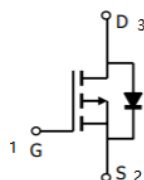
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Suggested Layout

SOT-23

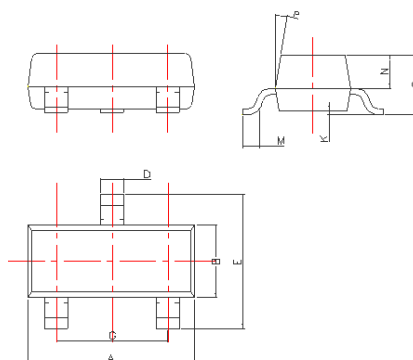


Top view



(±0.05mm)

Dimension



DIM	Millimeters
A	2.85~3.04
B	1.30±0.10
C	1.00±0.10
D	0.45±0.05
E	2.25~2.55
G	1.90±0.1
K	0.00-0.10
M	0.20 min
N	0.60±0.10
P	7±2°

MAXIMUM RATINGS (Ta=25°C)

Characteristic	Symbol	Rating	Unit
Drain-Source Voltage	V _{DSS}	-30	Vdc
Gate-Source Voltage	V _{GSS}	±12	Vdc
Drain Current—Continuous	I _D	-4.2	Adc
Peak Drain Current	I _{DM} ¹	-16	Adc

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Total Device Dissipation TA=25°C	P _D	450	mW
Thermal Resistance from Junction to Ambient	R _{θJA}	277	°C/W
Junction and Storage Temperature	T _J , T _{stg}	150, -55 to +150	°C

1. Repetitive Rating : Pulse width limited by maximum junction temperature

ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

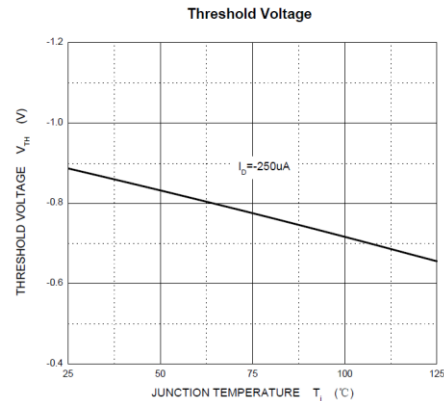
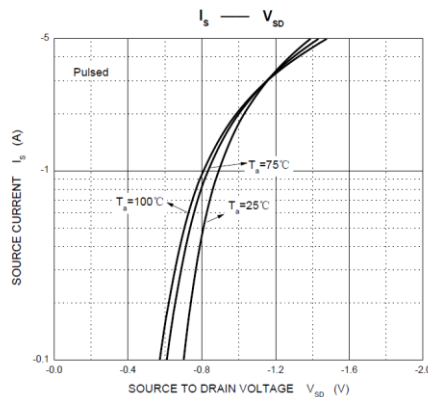
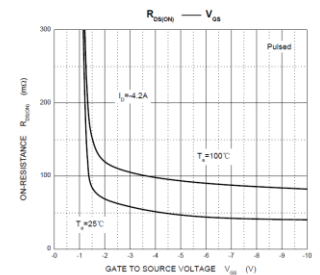
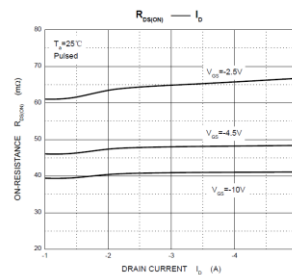
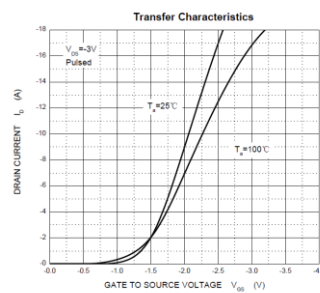
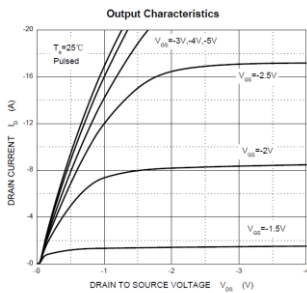
Characteristic	Symbol	Test Condition	Min	Type	Max	Unit
Drain-Source Breakdown Voltage	V _{(BR)DSS}	V _{GS} =0V, I _D =-250μA	-30	-	-	V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =-24V, V _{GS} =0V	-	-	-1.0	μA
Gate-Body Leakage Current, Forward	I _{GSS}	V _{GS} =±12V	-	-	±100	nA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} , I _D =-250μA	-0.60	-0.90	-1.3	V
Static Drain-Source On-State Resistance	R _{DS(on)}	V _{GS} =-10V, I _D =-4.2A	-	50	70	mΩ
		V _{GS} =-4.5V, I _D =-4.0A	-	60	80	
		V _{GS} =-2.5V, I _D =-4.0A	-	82	120	
Forward Transconductance	g _{fs}	V _{DS} =-5V, I _D =-5.0A	7	-	-	S

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Diode Forward On-Voltage	V_{SD}	$V_{GS}=0V, I_S=-1.0A$	-	0.75	1.3	V
Turn-On Delay Time	$t_{d(on)}$	$V_{DD}=-10V, V_{DS}=-15V, RL=3.6\Omega, R_{GEN}=6\Omega$	-	2.64	-	ns
Turn-On Time	t_r		-	10	-	
Turn-Off Delay Time	$t_{d(off)}$		-	52	-	
Turn-On Fall Time	t_f		-	16.2	-	
Input Capacitance	C_{iss}		-	740	-	
Output Capacitance	C_{oss}	$V_{DS}=-15V, V_{GS}=0V, f=1.0\text{ MHz}$	-	51	-	pF
Reverse Transfer Capacitance	C_{rss}		-	44	-	
Total Gate Charge	Q_G		-	7.4	-	
Gate.to source charge	Q_{GS}	$V_{DS}=-15V, I_D=-4A, V_{GS}=-4.5V$	-	1.3	-	nC
Gate.to drain charge	Q_{GD}		-	2.6	-	

Typical Performance Characteristics



Note: Specifications are subject to change without notice.

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