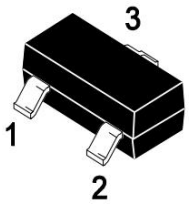
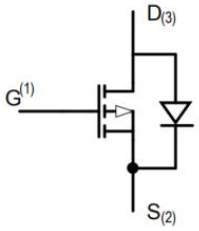
-30V/-4.2A P-Channel MOSFET

BVDSS	-30	V
ID	-4.2	A
RDSON@VGS=-10V	40.0	mΩ
RDSON@VGS=-4.5V	55.0	mΩ

SOT-23





Features

- Leading Trench Technology for Low RDS(on)
- Extending Battery Life
- Pb−Free, RoHS Compliant

Application

- Load Switch for Portable Devices
- DC/DC Converter

Ordering Information:

Product	Package	Marking	Packing
M03P042D	SOT-23		3000PCS/Reel

Absolute Maximum Ratings(T_a=25℃)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	- 30	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current (note1)	I_D	- 4.2	A
Power Dissipation (note1)	P_D	1.0	W
Thermal Resistance from Junction to Ambient (note1)	$R_{\theta JA}$	340	°C/W
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	-50 to +150	°C

-30V/-4.2A P-Channel MOSFET

Electrical Characteristics(Ta=25℃)

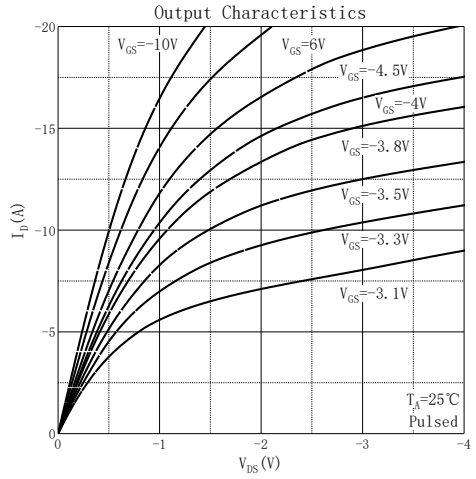
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
STATIC CHARACTERISTICE						
Drain-source breakdown voltage	$V_{(BR)DSS}$	V_{GS} = 0V, I_D =-250μA	-30			V
Zero gate voltage drain current	I_{DSS}	V_{DS} =-24V,V_{GS} = 0V			-1	μA
Gate-body leakage current	I_{GSS}	V_{GS} =±20V, V_{DS} = 0V			±100	nA
Gate threshold voltage (note2)	$V_{GS(th)}$	V_{DS} =V_{GS}, I_D =-250μA	-1.1	-1.5	-1.8	V
Drain-source on-resistance (note2)	$R_{DS(on)}$	V_{GS} =-10V, I_D =-4.2A		40	56	mΩ
		V_{GS} =-4.5V, I_D =-3.5A		55	75	mΩ
Maximum Continuous Drain to Source Diode Forward Current	I_S	T_C=25℃			-3.0	A
Forward tranconductance (note3)	g_{fs}	V_{DS} =-5.0V, I_D =-4.0A	--	7.0	--	S
DYNAMIC CHARACTERISTICS (note4)						
Input capacitance	C_{iss}	V_{DS} =-15V,V_{GS} =0V, f =1MHz	--	550	--	pF
Output capacitance	C_{oss}		--	75	--	pF
Reverse transfer capacitance	C_{rss}		--	63	--	pF
Gate resistance	R_g	V_{DS} =0V,V_{GS} =0V,f =1MHz	--	20	--	Ω
DRAIN-SOURCE DIODE CHARACTERISTICES AND MAXIMUM RATINGS(note3)						
Diode forward voltage	V_{SD}	I_S=-3.0A, V_{GS} =0V		-0.85	-1.0	V

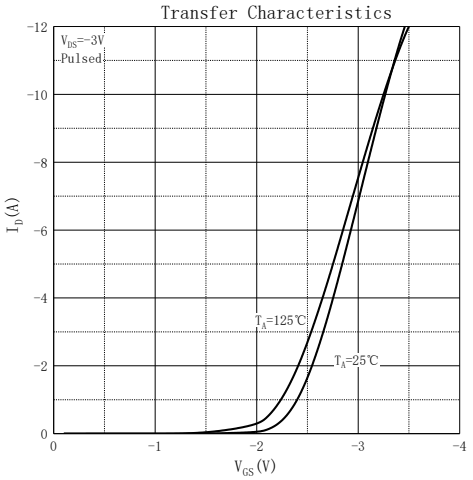
Notes:

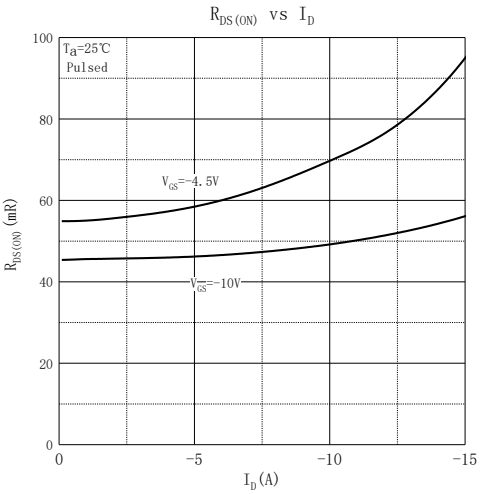
1. Surface mounted on FR4 board using the minimum recommended pad size.
2. Pulse Test : Pulse Width=300μs, Duty Cycle=2%.
3. These parameters have no way to verify.
4. Guaranteed by design, not subject to production testing.

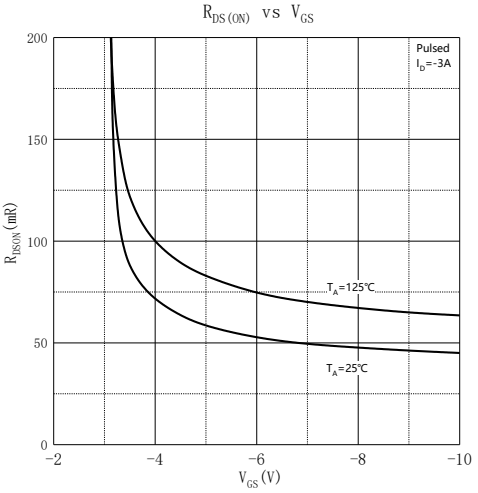
-30V/-4.2A P-Channel MOSFET

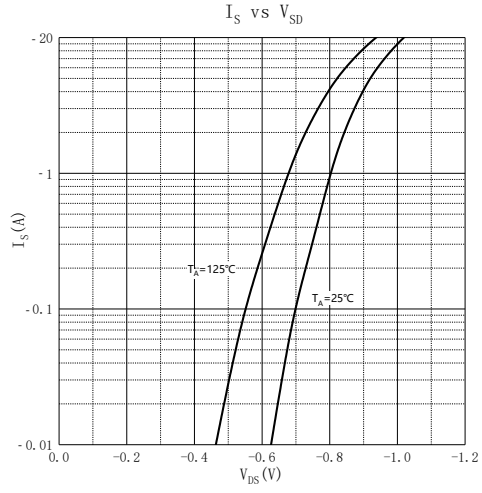
Electrical Characteristic Curve

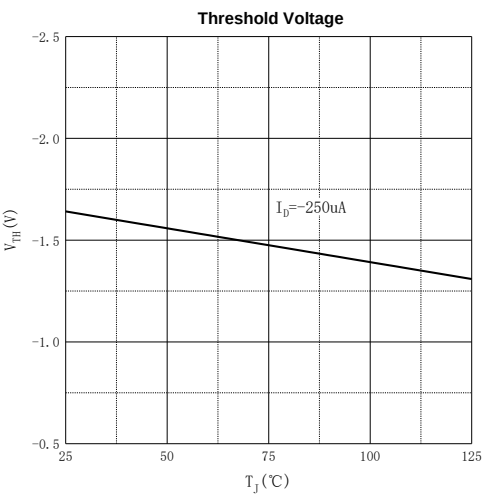








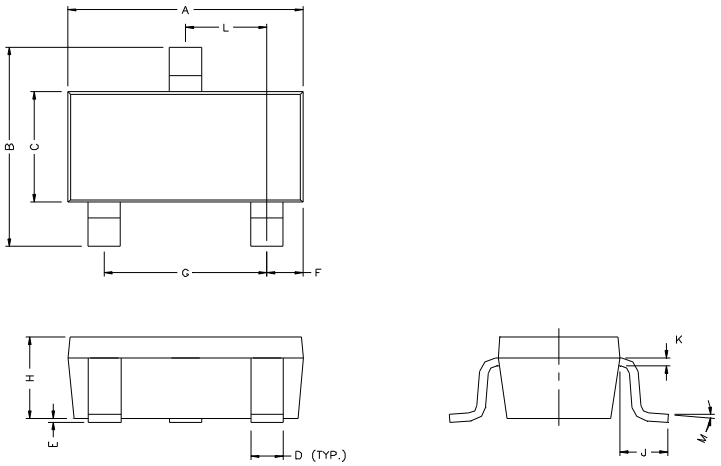




-30V/-4.2A P-Channel MOSFET

Dimension outline Unit:mm

SOT23



REF.	Millimeter		REF.	Millimete	
	Min.	Max.		Min.	Max.
A	2.80	3.00	G	1.80	2.00
B	2.25	2.55	H	0.90	1.10
C	1.25	1.35	K	0.10	0.20
D	0.35	0.50	J	0.35	0.70
E	0	0.10	L	0.92	0.98
F	0.45	0.55	M	0°	10°

SOT-23 Suggested Pad Layout

