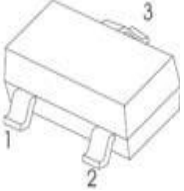
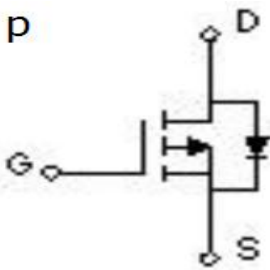
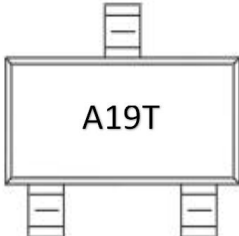


P-Channel 30-V(D-S) MOSFET	SOT-23 Plastic-Encapsulate MOSFETS
<p style="text-align: center;"><u>SOT-23</u></p>  <p>1.GATE 2.SOURCE 3.DRAIN</p> <p style="text-align: center;"><b>Equivalent Circuit</b></p> 	<p><b>Features</b></p> <ul style="list-style-type: none"> <li>※ TrenchFET Power MOSFET</li> <li>※ Exceptional on-resistance and maximum DC current capability</li> <li>※ High dense cell design for extremely low RDS(ON)</li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>※ Load Switch for Portable Devices</li> <li>※ DC/DC Converter</li> </ul> <p><b>MARKING</b></p> 

<b>V(BR)DSS</b>	<b>RDS(on)MAX</b>	<b>ID</b>
-30 V	60m Ω @-10V	-4.1A
	65m Ω @-4.5V	
	100m Ω @-2.5V	

**Maximum ratings ( Ta=25°C unless otherwise noted)**

Parameter	Symbol	Value	Unit
Drain-Source Voltage	VDS	-30	V
Gate-Source Voltage	VGS	±12	
Continuous Drain Current	ID	-4.1	A
Pulsed Diode Curren	IDM	-16.8	
Continuous Source-Drain Current(Diode Conduction)	IS	-1	
Power Dissipation	PD	1	W
Thermal Resistance from Junction to Ambient (t≤5s)	RθJA	200	°C/W
Operating Junction	TJ	150	°C
Storage Temperature	TSTG	-55~+150	°C

<b>MOSFET ELECTRICAL CHARACTERISTICS</b>						
<b>Static Electrical Characteristics (Ta = 25 °C Unless Otherwise Noted)</b>						
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
<b>Static</b>						
Drain-source breakdown voltage	V(BR)DSS	VGS = 0V, ID = -250μA	-30			V
Gate-source threshold voltage	VGS(th)	VDS =VGS, ID = -250μA	-0.7		-1.3	V
Gate-source leakage	IGSS	VDS =0V, VGS = ±12V			±100	nA
Zero gate voltage drain current	IDSS	VDS = -30V, VGS =0V			1	μA
Drain-source on-state resistancea	RDS(on)	VGS = -10V, ID = -4.1A		50	65	mΩ
		VGS = -4.5V, ID = -3.6A		60	75	mΩ
		VGS = -2.5V, ID = -2A		75	90	mΩ
Forward transconductancea	gfs	VDS = -4.5V, ID = -4.1A	7			S
Diode forward voltage	VSD	IS=-1A,VGS=0V			-1.3	V
<b>Dynamic</b>						
Input capacitance	Ciss	VDS = -15V,VGS =0V, f=1MHz		950		pF
Output capacitance	Coss			95□		pF
Reverse transfer capacitanceb	Crss			77		pF
Total gate charge	Qg	VDS = -15V,VGS = -10V, ID =-4.1A		14		nC
Gate-source charge	Qgs			1.5		nC
Gate-drain charge	Qgd			2.5		nC
Gate resistance	Rg	f=1MHz		8		Ω
<b>Switchingb</b>						
Turn-on delay time	td(on)	VDD= -15V RL=4Ω, ID ≈ -1A, VGEN=- 10V,Rg=3Ω		6.5		ns
Rise time	tr			3.5		ns
Turn-off delay time	td(off)			41		ns
Fall time	tf			9		ns
<b>Drain-source body diode characteristics</b>						
Continuous Source-Drain Diode Current	IS	Tc=25°C			-1.3	A
Pulsed Diode forward Current	ISM				-20	A
<b>Note :</b>						
1. Repetitive Rating : Pulse width limited by maximum junction temperature.						
2. Surface Mounted on FR4 Board, t < 5 sec.						
3. Pulse Test : Pulse Width≤300μs, Duty Cycle ≤ 2%.						
4. Guaranteed by design, not subject to production testing.						

**Typical Characteristics:**

