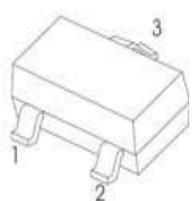
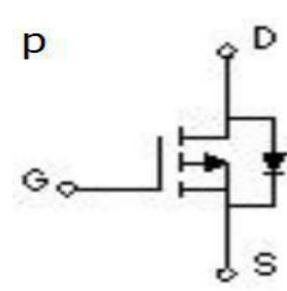
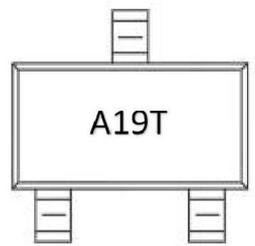


P-Channel 30-V(D-S) MOSFET		SOT-23 Plastic-Encapsulate MOSFETS	
<p>SOT-23</p>  <p>1.GATE 2.SOURCE 3.DRAIN</p> <p>Equivalent Circuit</p> 		<p>Features</p> <ul style="list-style-type: none"> ※ TrenchFET Power MOSFET ※ Exceptional on-resistance and maximum DC current capability ※ High dense cell design for extremely low RDS(ON) <p>Application</p> <ul style="list-style-type: none"> ※ Load Switch for Portable Devices ※ DC/DC Converter <p>MARKING</p> 	
V(BR)DSS	RDS(on)MAX	ID	
-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	-27	
Continuous Source-Drain Current(Diode Conduction)	IS	-2	
Power Dissipation	PD	1.4	W
Thermal Resistance from Junction to Ambient (t≤5s)	RθJA	125	°C/W
Operating Junction	TJ	150	°C
Storage Temperature	TSTG	-55~+150	°C

MOSFET ELECTRICAL CHARACTERISTICS						
Static Electrical Characteristics (Ta = 25 °C Unless Otherwise Noted)						
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Static						
Drain-source breakdown voltage	V(BR)DSS	VGS = 0V, ID = -250μA	-30			V
Gate-source threshold voltage	VGS(th)	VDS = VGS, ID = -250μA	-0.6		-1.2	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	60	mΩ
		VGS = -4.5V, ID = -3.6A		55	70	mΩ
		VGS = -2.5V, ID = -2A		71	90	mΩ
Forward transconductancea	gfs	VDS = -4.5V, ID = -4.1A	7			S
Diode forward voltage	VSD	IS = -1A, VGS = 0V		-0.7	-1.3	V
Dynamic						
Input capacitance	Ciss	VDS = -15V, VGS = 0V, f = 1MHz		645		pF
Output capacitance	Coss			80		pF
Reverse transfer capacitanceb	Crss			55		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
Switchingb						
Turn-on delay time	td(on)	VDD = -15V RL = 4Ω, ID ≈ -1A, VGEN = -10V, Rg = 3Ω		6.3		ns
Rise time	tr			3.2		ns
Turn-off delay time	td(off)			41		ns
Fall time	tf			9		ns
Drain-source body diode characteristics						
Continuous Source-Drain Diode Current	IS	Tc = 25°C			-1.3	A
Pulsed Diode forward Current	ISM				-20	A
Note :						
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:

