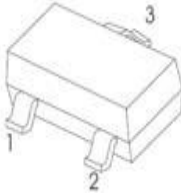
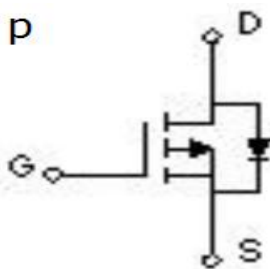
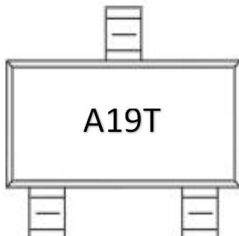


P-Channel 30-V(D-S) MOSFET		SOT-23 Plastic-Encapsulate MOSFETS	
SOT-23  1.GATE 2.SOURCE 3.DRAIN Equivalent Circuit  Features ※ TrenchFET Power MOSFET ※ Exceptional on-resistance and maximum DC current capability ※ High dense cell design for extremely low RDS(ON) Application ※ Load Switch for Portable Devices ※ DC/DC Converter MARKING 			
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℃ 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 Current	IDM	-15	
Continuous Source-Drain Current(Diode Conduction)	IS	-1	
Power Dissipation	PD	0. 35	W
Thermal Resistance from Junction to Ambient (t≤5s)	R θ JA	150	℃/W
Operating Junction	TJ	150	℃
Storage Temperature	TSTG	-55~+150	℃

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	0.9	-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 = -2.8A		50	60	mΩ
		VGS = -4.5V, ID = -2A		55	65	mΩ
		VGS = -2.5V, ID = -2A		70	100	mΩ
Forward transconductancea	gfs	VDS = -4.5V, ID = 4A	7			S
Diode forward voltage	VSD	IS=1A,VGS=0V		-0.7	-1.3	V
Dynamic						
Input capacitance	Ciss	VDS = -8V,VGS =0V, f=1MHz		954		pF
Output capacitance	Coss			115		pF
Reverse transfer capacitanceb	Crss			77		pF
Total gate charge	Qg	VDS = -20V,VGS = -4.5V, ID =-4.5A		9.4		nC
Gate-source charge	Qgs			2		nC
Gate-drain charge	Qgd			3		nC
Gate resistance	Rg	f=1MHz			3.6	Ω
Switchingb						
Turn-on delay time	td(on)	VDD= -10V RL=10Ω, ID ≈ -1A, VGEN=- 4.5V,Rg=6Ω		6.3		ns
Rise time	tr			3.2		ns
Turn-off delay time	td(off)			38.2		ns
Fall time	tf			12		ns
Drain-source body diode characteristics						
Continuous Source-Drain Diode Current	IS	Tc=25℃			-1.3	A
Pulsed Diode forward Curren	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:

