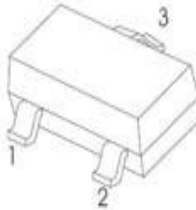
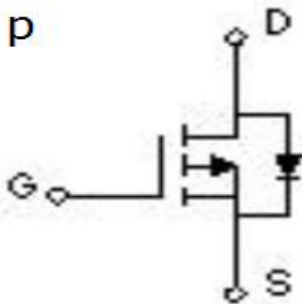
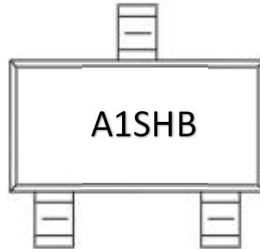


P-Channel 20-V(D-S) MOSFET	SOT-23 Plastic-Encapsulate MOSFETS		
<u>SOT-23</u>  1.GATE 2.SOURCE 3.DRAIN Equivalent Circuit 	Features ※ TrenchFET Power MOSFET ※ Advanced trench process technology Application ※ Load Switch for Portable Devices ※ DC/DC Converter MARKING 		
Maximum ratings (Ta=25℃ unless otherwise noted)			
Parameter	Symbol	Value	Unit
Drain-Source Voltage	VDS	-20	V
Gate-Source Voltage	VGS	±12	
Continuous Drain Current	ID	-2.8	A
Pulsed Diode Curren	IDM	-10	
Continuous Source-Drain Current(Diode Conduction)	IS	-1.3	
Power Dissipation	PD	1.25	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	-20			V
Gate-source threshold voltage	VGS(th)	VDS =VGS, ID = -250μA	-0.4		-0.1	V
Gate-source leakage	IGSS	VDS =0V, VGS =±12V			±100	μA
Zero gate voltage drain current	IDSS	VDS = -20V, VGS =0V			-1	μA
Drain-source on-state resistancea	RDS(on)	VGS = -4.5V, ID = -2.8A		100	118	mΩ
		VGS = -2.5V, ID = -2.0A		120	150	mΩ
Forward transconductancea	gfs	VDS = -4.5V, ID = -2.8A		4		S
Diode forward voltage	VSD	IS= -1.25A,VGS=0V		-0.8	-1.5	V
Dynamic						
Input capacitance	Ciss	VDS = -6V,VGS =0V, f=1MHz		589		pF
Output capacitance	Coss			92		pF
Reverse transfer capacitanceb	Crss			68		pF
Total gate charge	Qg	VDS = -6V,VGS = -4.5V, ID = -2.8A		5.5	10	nC
Gate-source charge	Qgs			0.7		nC
Gate-drain charge	Qgd			1.3		nC
Gate resistance	Rg	f=1MHz		6.0		Ω
Switchingb						
Turn-on delay time	td(on)	VDD=-6V RL=6Ω, ID ≈ 1A, VGEN= -4.5V,Rg=6Ω		10	20	ns
Rise time	tr			35	60	ns
Turn-off delay time	td(off)			30	50	ns
Fall time	tf			10	20	ns
Drain-source body diode characteristics						
Continuous Source-Drain Diode Current	IS	Tc=25℃			-1.3	A
Pulsed Diode forward Curren	ISM				-10	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 ELECTRICAL AND THERMAL CHARACTERISTICS

