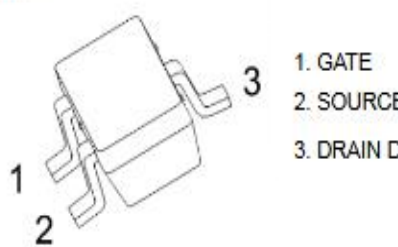
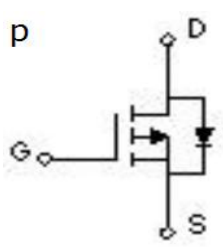
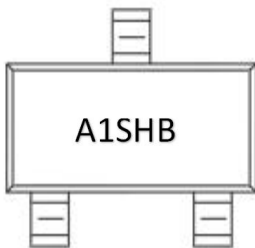


P-Channel 20-V(D-S) MOSFET		SOT-23-3L Plastic-Encapsulate MOSFETS	
<p style="text-align: center;"><u>SOT-23-3L</u></p>  <p>1. GATE 2. SOURCE 3. DRAIN D</p> <p style="text-align: center;">Equivalent Circuit</p> 		<p>Features</p> <ul style="list-style-type: none"> ※ TrenchFET Power MOSFET <p>Application</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
-20 V	90mΩ @-4.5V		-3A
	115mΩ @-2.5V		
Maximum ratings (Ta=25°C unless otherwise noted)			
Parameter	Symbol	Value	Unit
Drain-Source Voltage	VDS	-20	V
Gate-Source Voltage	VGS	±12	
Continuous Drain Current	ID	-3	A
Pulsed Diode Curren	IDM	-15	
Continuous Source-Drain Current(Diode Conduction)	IS	-0.8	
Power Dissipation	PD	1.25	W
Thermal Resistance from Junction to Ambient (t≤5s)	RθJA	150	°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	-20			V
Gate-source threshold voltage	VGS(th)	VDS = VGS, ID = -250μA	-0.4		-1.	V
Gate-source leakage	IGSS	VDS = 0V, VGS = ±12V			±100	nA
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		72	90	mΩ
		VGS = -2.5V, ID = -2A		91.76	115	mΩ
Forward transconductancea	gfs	VDS = -4.5V, ID = -4A		4		S
Diode forward voltage	VSD	IS=-1A, VGS=0V		-0.8	-1.3	V
Dynamic						
Input capacitance	Ciss	VDS = -16V, VGS = 0V, f=1MHz		589		pF
Output capacitance	Coss			92		pF
Reverse transfer capacitanceb	Crss			68		pF
Total gate charge	Qg	VDS = -16V, VGS = -4.5V, ID = -4.5A		5.5	10	nC
Gate-source charge	Qgs			0.8		nC
Gate-drain charge	Qgd			1.3		nC
Gate resistance	Rg	f=1MHz		6		Ω
Switchingb						
Turn-on delay time	td(on)	VDD= -10V RL=10Ω, ID ≈ -3A, 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°C			-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.						