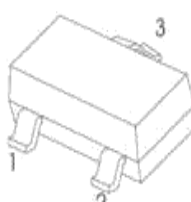
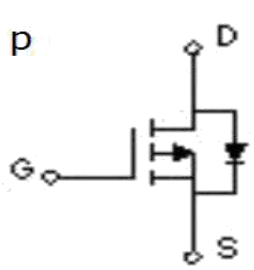
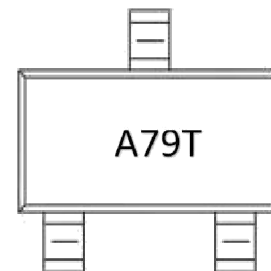


<p>P-Channel 30-V(D-S) MOSFET</p>	<p>SOT-23 Plastic-Encapsulate MOSFETS</p>
<p style="text-align: center;"><u>SOT-23</u></p>  <p>1.GATE 2.SOURCE 3.DRAIN</p> <p style="text-align: center;"><b>Equivalent Circuit</b></p> 	<p><b>Features</b></p> <ul style="list-style-type: none"> <li>※ TrenchFET Power MOSFET</li> </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	80mΩ @-10V 110mΩ @-4.5V	-4.1A

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

Parameter	Symbol	Value	Unit
Drain-Source Voltage	VDS	-30	V
Gate-Source Voltage	VGS	±20	
Continuous Drain Current	ID	-4.1	A
Pulsed Diode Curren	IDM	-15	
Continuous Source-Drain Current(Diode Conduction)	IS	-1	
Power Dissipation	PD	0.35	W
Thermal Resistance from Junction to Ambient (t≤5s)	RθJA	150	°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>						
<b>Parameter</b>	<b>Symbol</b>	<b>Test Condition</b>	<b>Min</b>	<b>Typ</b>	<b>Max</b>	<b>Unit</b>
<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	-1	-1.3	-1.95	V
Gate-source leakage	IGSS	VDS = 0V, VGS = ±20V			±100	nA
Zero gate voltage drain current	IDSS	VDS = -30V, VGS = 0V			1	μA
Drain-source on-state resistancea	RDS(on)	VGS = -10V, ID = -4A		54	80	mΩ
		VGS = -4.5V, ID = -1.5A		65	110	mΩ
Forward transconductancea	gfs	VDS = -4.5V, ID = -4A	5.5			S
Diode forward voltage	VSD	IS=-1A, VGS=0V		-0.8	-1.3	V
<b>Dynamic</b>						
Input capacitance	Ciss	VDS = -8V, VGS = 0V, f=1MHz		700		pF
Output capacitance	Coss			120		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
<b>Switchingb</b>						
Turn-on delay time	td(on)	VDD= -10V RL=10Ω, ID ≈ -1A, VGEN=- 4.5V, Rg=6Ω		8.6		ns
Rise time	tr			5		ns
Turn-off delay time	td(off)			28.2		ns
Fall time	tf			13.5		ns
<b>Drain-source body diode characteristics</b>						
Continuous Source-Drain Diode Current	IS	Tc=25°C			-2.3	A
Pulsed Diode forward Curren	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:**

