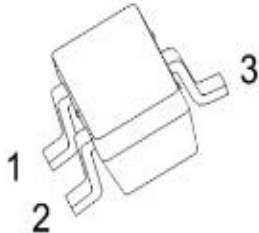
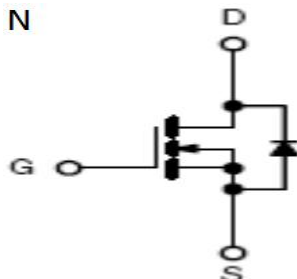
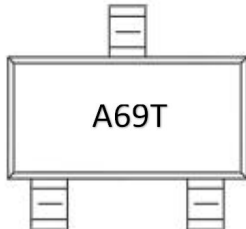


N-Channel 30-V(D-S) MOSFET		SOT-23-3L Plastic-Encapsulate MOSFETS	
SOT-23-3L  1. GATE 2. SOURCE 3. DRAIN D Equivalent Circuit 		Features ※ TrenchFET Power MOSFET Application ※ Load Switch for Portable Devices ※ DC/DC Converter MARKING 	
V(BR)DSS	RDS(on)MAX		ID
30 V	55m Ω @10V		4A
	80m Ω @4.5V		
Maximum ratings (Ta=25℃ unless otherwise noted)			
Parameter	Symbol	Value	Unit
Drain-Source Voltage	VDS	30	V
Gate-Source Voltage	VGS	±20	
Continuous Drain Current	ID	4	A
Pulsed Diode Current	IDM	20	
Continuous Source-Drain Current(Diode Conduction)	IS	0.8	
Power Dissipation	PD	0.75	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	1		3	V
Gate-source leakage	IGSS	VDS =0V, VGS = ±20V			±95	nA
Zero gate voltage drain current	IDSS	VDS = 30V, VGS =0V			1	μA
Drain-source on-state resistancea	RDS(on)	VGS = 10V, ID = 3.5A		39.43	55	mΩ
		VGS = 4.5V, ID = 2.8A		49.85	80	mΩ
Forward transconductancea	gfs	VDS = 4.5V, ID = 4A		7		S
Diode forward voltage	VSD	IS= 1.25A,VGS=0V		0.8	1.3	V
Dynamic						
Input capacitance	Ciss	VDS = 15V,VGS = 0V, f=1MHz		305		pF
Output capacitance	Coss			65		pF
Reverse transfer capacitanceb	Crss			29		pF
Total gate charge	Qg	VDS = 18V,VGS = 4.5V, ID =-3A		3	4.5	nC
Gate-source charge	Qgs			1.6		nC
Gate-drain charge	Qgd			0.6		nC
Gate resistance	Rg	f=1MHz		5		Ω
Switchingb						
Turn-on delay time	td(on)	VDD= 10V RL=10Ω, ID ≈ 3A, VGEN= 4.5V,Rg=6Ω		7	11	ns
Rise time	tr			12	18	ns
Turn-off delay time	td(off)			14	25	ns
Fall time	tf			6	10	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.						