

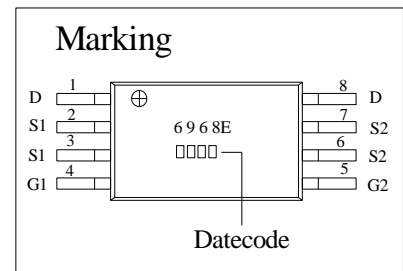
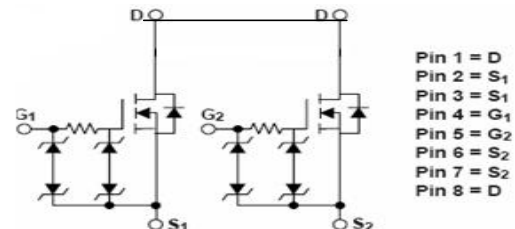
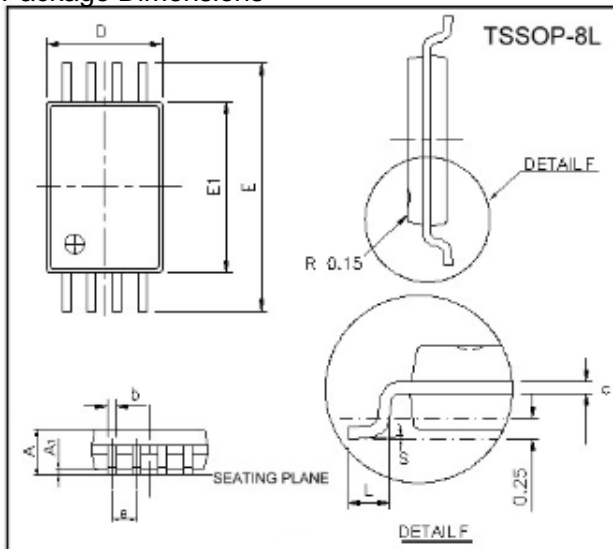
**YGMOS Technology Crop.**

20V Dual N-Channel Enhancement-Mode MOSFET    20V 双 N 沟道增强型 MOS 管

**VDS= 20V    ID= 6.5A**
**ESD Protected : 2000V**
**RDS(ON), Vgs@2.5V, Ids@5.5A = 32mΩ**
**RDS(ON), Vgs@4.5V, Ids@6.5A = 24mΩ**
**Features 特性**

- Advanced trench process technology    高级的加工技术
- High Density Cell Design For Ultra Low On-Resistance
- Specially Designed for Li ion battery packs use
- Designed for battery switch applications
- Battery Switch, ESD protected

极低的导通电阻高密度的单元设计、专为锂电池设计、静电保护


**Package Dimensions**


- Pin 1 = D
- Pin 2 = S1
- Pin 3 = S1
- Pin 4 = G1
- Pin 5 = G2
- Pin 6 = S2
- Pin 7 = S2
- Pin 8 = D

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	5.80	6.20	M	0.10	0.25
B	4.80	5.00	H	0.35	0.49
C	3.80	4.00	L	1.35	1.75
D	0°	8°	J	0.375 REF.	
E	0.40	0.90	K	45°	
F	0.19	0.25	G	1.27 TYP.	

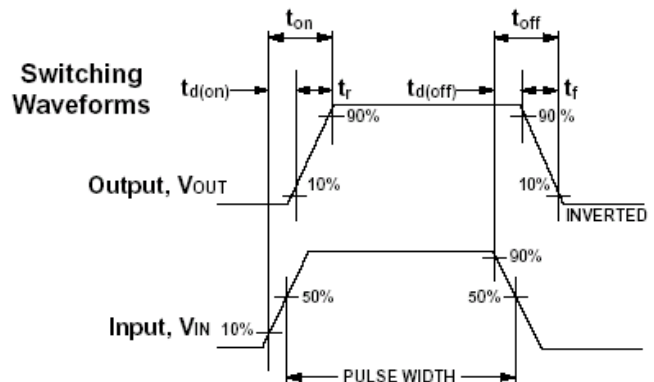
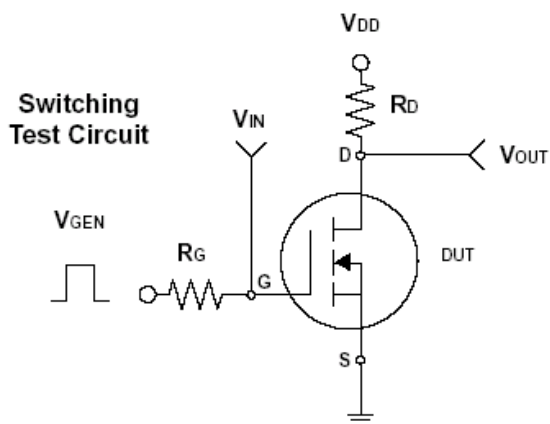
**Maximum Ratings and Thermal Characteristics (TA = 25°C unless otherwise noted) 25°C 极限参数和热特性**

Parameter 极限参数	Symbol 符号	Limit 范围	Unit 单位	
Drain-Source Voltage 漏源电压	V <sub>DS</sub>	20	V	
Gate-Source Voltage 栅源电压	V <sub>GS</sub>	± 12		
Continuous Drain Current 连续漏极电流	I <sub>D</sub>	6.5	A	
Pulsed Drain Current 脉冲漏极电流	I <sub>DM</sub>	24		
Maximum Power Dissipation 最大耗散功率	P <sub>D</sub>	TA = 25°C	2	W
		TA = 75°C	0.64	
Operating Junction and Storage Temperature Range 使用及储存温度	T <sub>J</sub> , T <sub>stg</sub>	-55 to 150	°C	
Junction-to-Ambient Thermal Resistance (PCB mounted) 结环热阻	R <sub>θJA</sub>	62.5	°C/W	

**YGMOS Technology Crop.**
**ELECTRICAL CHARACTERISTICS** 一般电气特性

Parameter 参数	符号	Test Condition 测试条件	最小值	典型值	最大值	单位
<b>Static 静态参数</b>						
Drain-Source Breakdown Voltage 漏源击穿电压	$BV_{DSS}$	$V_{GS} = 0V, I_D = 250\mu A$	20			V
Drain-Source On-State Resistance 漏源导通电阻	$R_{DS(on)}$	$V_{GS} = 2.5V, I_D = 5.5A$		26.0	32.0	mΩ
Drain-Source On-State Resistance 漏源导通电阻	$R_{DS(on)}$	$V_{GS} = 4.5V, I_D = 6.5A$		20.0	24.0	
Gate Threshold Voltage 开启电压	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = 250\mu A$	0.6		1	V
Zero Gate Voltage Drain Current 零栅压漏极电流	$I_{DSS}$	$V_{DS} = 16V, V_{GS} = 0V$			1	uA
Gate Body Leakage 漏极短路时截止栅电流	$I_{GSS}$	$V_{GS} = \pm 12V, V_{DS} = 0V$			±10	uA
Forward Transconductance 正向跨导	$g_{fs}$	$V_{DS} = 10V, I_D = 6A$		16	—	S
<b>Dynamic 动态参数</b>						
Total Gate Charge 栅极总电荷	$Q_g$	$V_{DS} = 10V, I_D = 6A$ $V_{GS} = 4.5V$		15	20	nC
Gate-Source Charge 栅-源极电荷	$Q_{gs}$			3.4		
Gate-Drain Charge 栅-漏极电荷	$Q_{gd}$			1.2		
Turn-On Delay Time 导通延迟时间	$t_{d(on)}$	$V_{DD} = 10V,$ $I_D = 1A, V_{GEN} = 4.5V$ $R_G = 6\Omega$		140	200	ns
Turn-On Rise Time 导通上升时间	$t_r$			210	250	
Turn-Off Delay Time 关断延迟时间	$t_{d(off)}$			390	450	
Turn-Off Fall Time 关断下降时间	$t_f$			220	260	
Input Capacitance 输入电容	$C_{iss}$	$V_{DS} = 8V, V_{GS} = 0V$ $f = 1.0\text{ MHz}$		950		pF
Output Capacitance 输出电容	$C_{oss}$			450		
Reverse Transfer Capacitance 反向传输电容	$C_{rss}$			135		
<b>Source-Drain Diode 源漏二极管参数</b>						
Max. Diode Forward Current 最大正向电流	$I_S$				1.7	A
Diode Forward Voltage 正向电压	$V_{SD}$	$I_S = 1.7A, V_{GS} = 0V$			1.2	V

Note: Pulse test: pulse width  $\leq 300\mu s$ , duty cycle  $\leq 2\%$  注意: 脉冲测试: 脉冲宽度  $\leq 300\mu s$  死区  $\leq 2\%$



**YGMOS Technology Corp.**
**Typical Characteristics (T<sub>J</sub> = 25°C Noted)**
