

Product Summary

$V_{(BR)DSS}$	$R_{DS(on)TYP}$	I_D
20V	19.5mΩ@10V	5A
	24mΩ@4.5V	

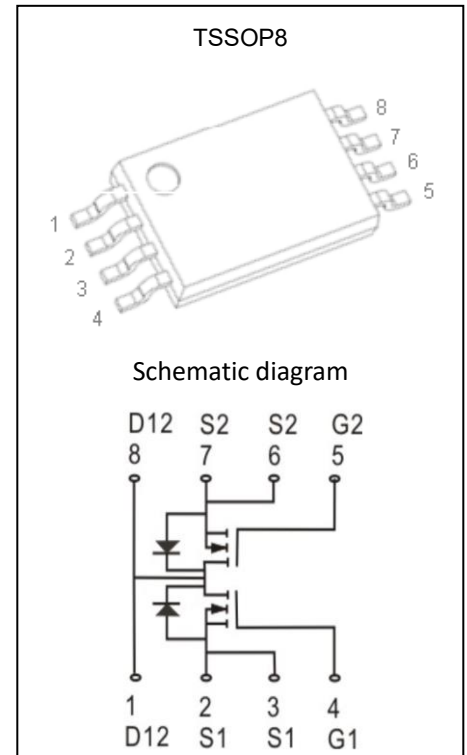
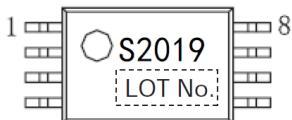
Feature

- TrenchFET Power MOSFET
- Excellent $R_{DS(on)}$
- Low Gate Charge
- High Power and Current Handling Capability
- Surface Mount Package

Application

- Battery Protection
- Load Switch
- Power Management

MARKING:



ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	± 10	V
Continuous Drain Current	I_D	5	A
Pulsed Drain Current ⁽¹⁾	I_{DM}	25	A
Power Dissipation	P_D	2	W
Thermal Resistance from Junction to Ambient ⁽²⁾	$R_{\theta JA}$	62.5	$^\circ\text{C/W}$
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55~ +150	$^\circ\text{C}$
Lead Temperature for Soldering Purposes(1/8" from case for 10s)	T_L	260	$^\circ\text{C}$

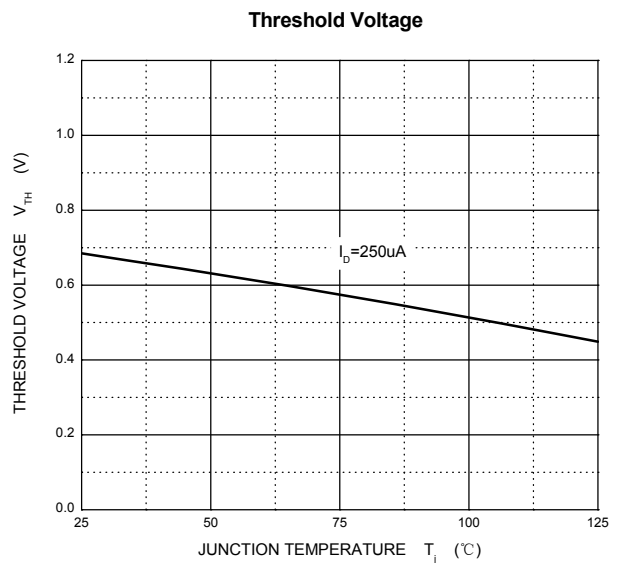
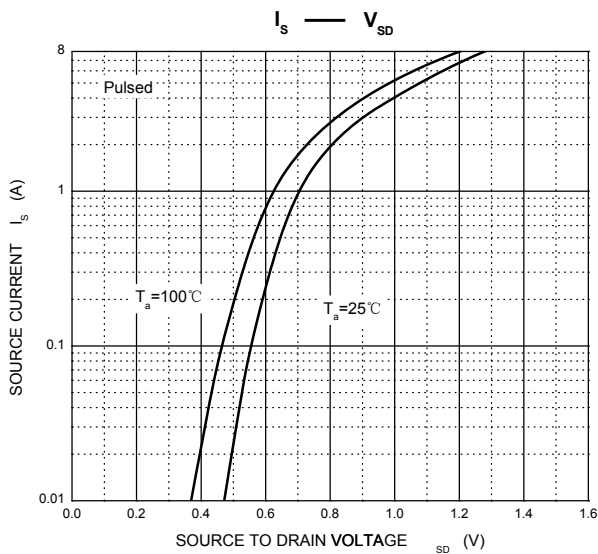
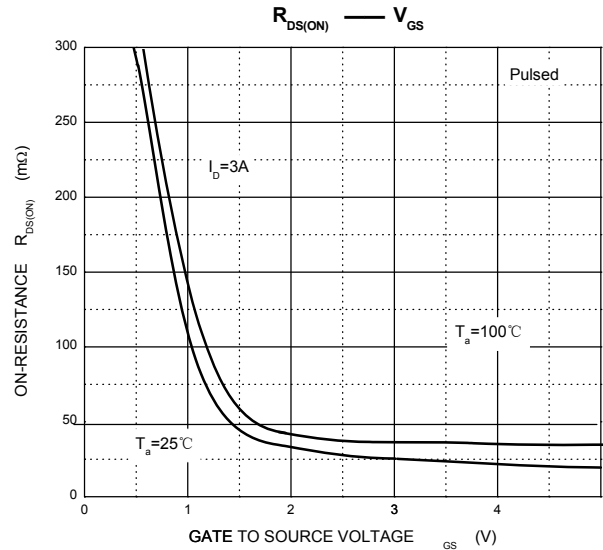
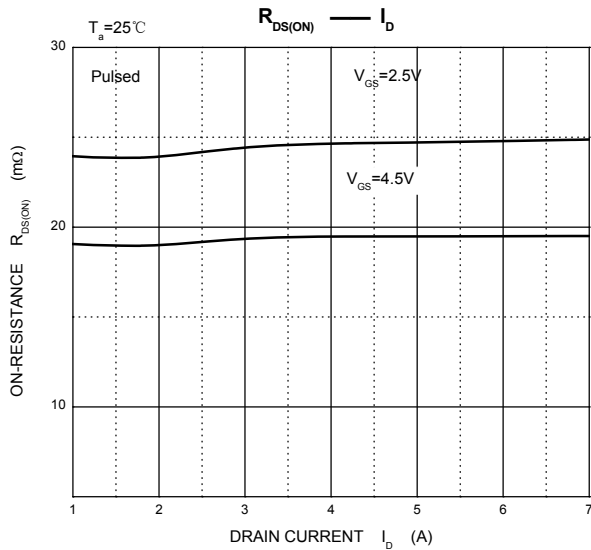
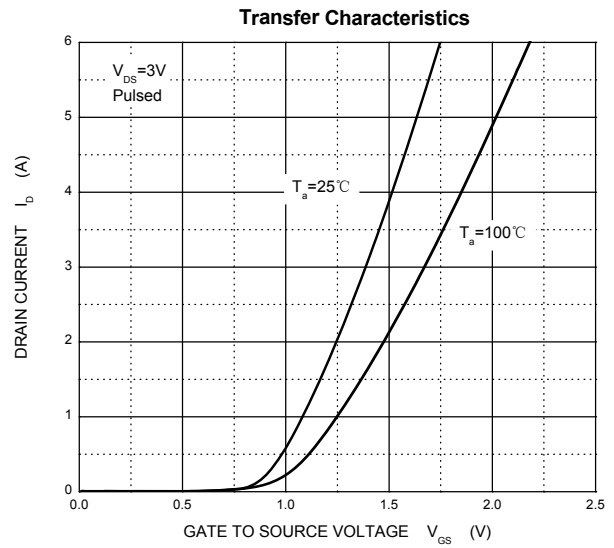
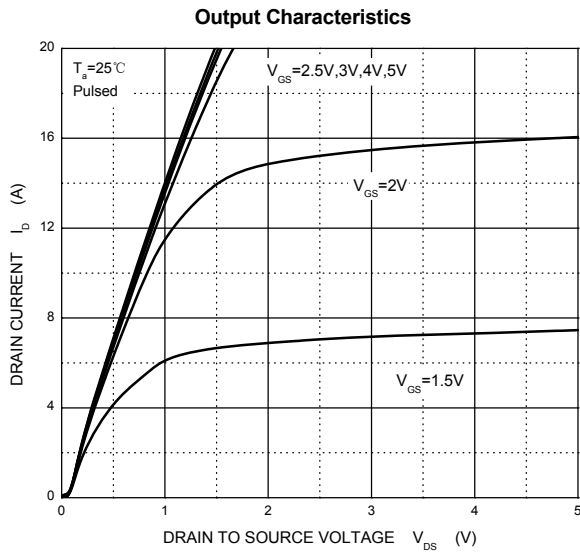
MOSFET ELECTRICAL CHARACTERISTICS(T_a=25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Type	Max	Unit
Static Characteristics						
Drain-source breakdown voltage	V _{(BR)DSS}	V _{GS} = 0V, I _D =250μA	20			V
Zero gate voltage drain current	I _{DSS}	V _{DS} =18V, V _{GS} = 0V			1	μA
Gate-body leakage current	I _{GSS}	V _{GS} =±10V, V _{DS} = 0V			±100	nA
Gate threshold voltage ⁽³⁾	V _{GS(th)}	V _{DS} =V _{GS} , I _D =250μA	0.5	0.7	1.2	V
Drain-source on-resistance ⁽³⁾	R _{DS(on)}	V _{GS} =4.5V, I _D =5A		19.5	27	mΩ
		V _{GS} =2.5V, I _D =6A		24	35	
Forward tranconductance ⁽³⁾	g _{FS}	V _{DS} =5V, I _D =4.5A	5			S
Diode Forward voltage ⁽³⁾	V _{DS}	V _{GS} =0V, I _S =1.25A			1.2	V
Dynamic characteristics⁽⁴⁾						
Input Capacitance	C _{iss}	V _{DS} =8V, V _{GS} =0V, f =1MHz		800		pF
Output Capacitance	C _{oss}			155		
Reverse Transfer Capacitance	C _{rss}			125		
Total gate charge	Q _g	V _{DS} =10V, V _{GS} =4.5V, I _D =4A		11		nC
Gate-source charge	Q _{gs}			2.3		
Gate-drain charge	Q _{gd}			2.5		
Switching Characteristics⁽⁴⁾						
Turn-on delay time	t _{d(on)}	V _{GS} =4V, V _{DD} =10V, I _D =1A, R _{GEN} =10Ω		18		ns
Turn-on rise time	t _r			5		
Turn-off delay time	t _{d(off)}			43		
Turn-off fall time	t _f			20		

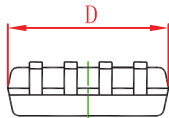
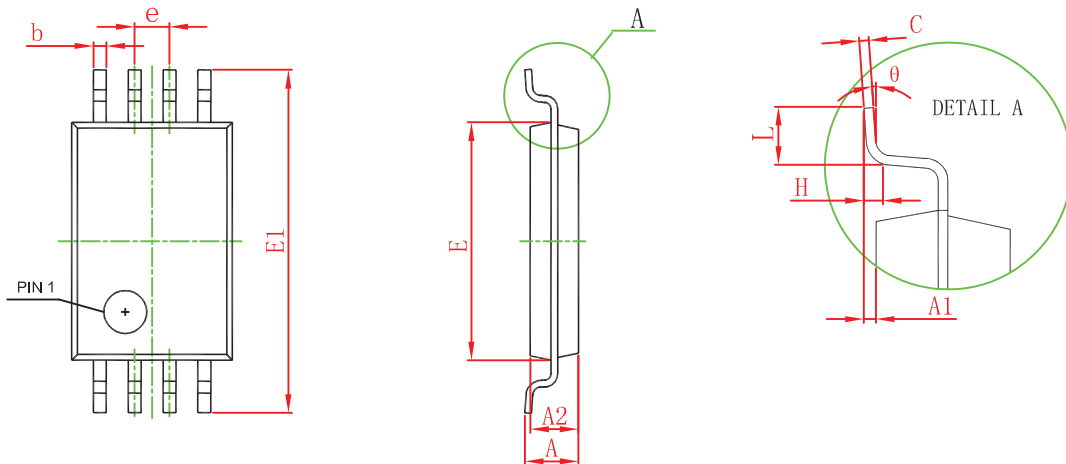
Notes :

- 1.Repetitive rating: Pluse width limited by maximum junction temperature
- 2.Surface Mounted on FR4 board, t≤10 sec.
3. Pulse test : Pulse width≤300μs, duty cycle≤2%.
4. Guaranteed by design, not subject to production.

Typical Electrical and Thermal Characteristics



TSSOP8 Package Information



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
D	2.900	3.100	0.114	0.122
E	4.300	4.500	0.169	0.177
b	0.190	0.300	0.007	0.012
c	0.090	0.200	0.004	0.008
E1	6.250	6.550	0.246	0.258
A		1.200		0.047
A2	0.800	1.000	0.031	0.039
A1	0.050	0.150	0.002	0.006
e	0.65 (BSC)		0.026 (BSC)	
L	0.500	0.700	0.020	0.028
H	0.25(TYP)		0.01(TYP)	
θ	1°	7°	1°	7°

单击下面可查看定价，库存，交付和生命周期等信息

[>>GP\(格瑞宝\)](#)