



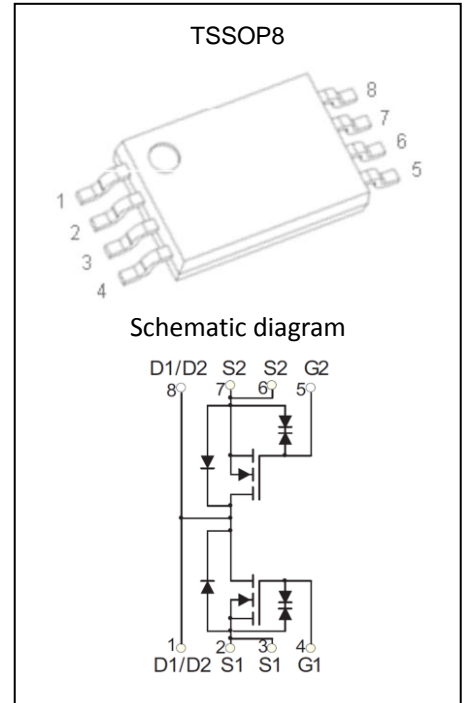
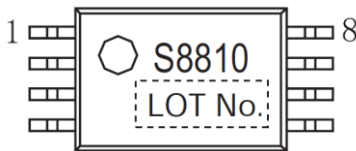
Product Summary

$V_{(BR)DSS}$	$R_{DS(on)TYP}$	I_D
20V	12.3mΩ@4.5V	7A
	13mΩ@3.8V	
	14mΩ@3.1V	
	15.7mΩ@2.5V	

DESCRIPTION

The GP8810S uses advanced trench technology to provide excellent $R_{DS(ON)}$ and low gate charge. It is ESD protected. This device is suitable for use as a uni-directional or bi-directional load switch, facilitated by its common-drain configuration.

MARKING:



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

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	± 12	V
Continuous Drain Current	I_D	7	A
Pulsed Drain Current	I_{DM}^*	30	A
Power Dissipation	P_D	2	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	62.5	$^{\circ}C/W$
Junction Temperature	T_J	150	$^{\circ}C$
Storage Temperature	T_{STG}	-55~ +150	$^{\circ}C$
Lead Temperature for Soldering Purposes(1/8" from case for 10s)	T_L	260	$^{\circ}C$

* Repetitive rating : Pulse width limited by junction temperature.

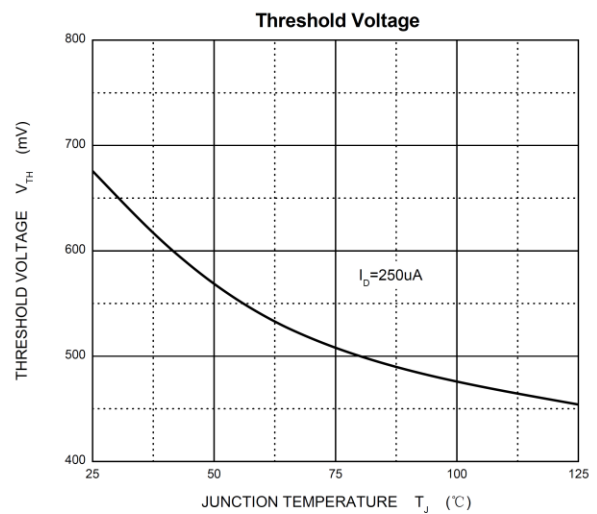
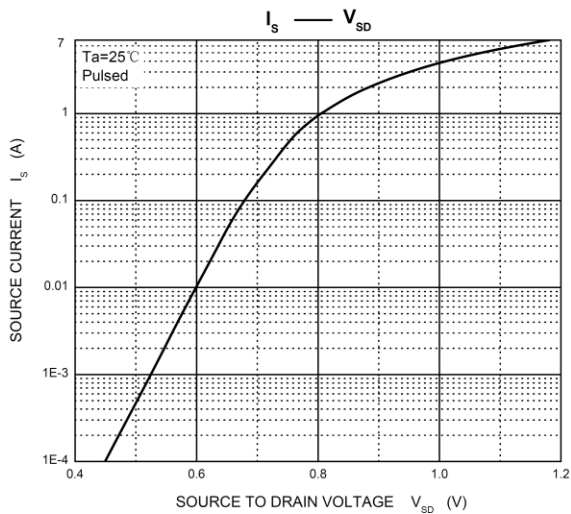
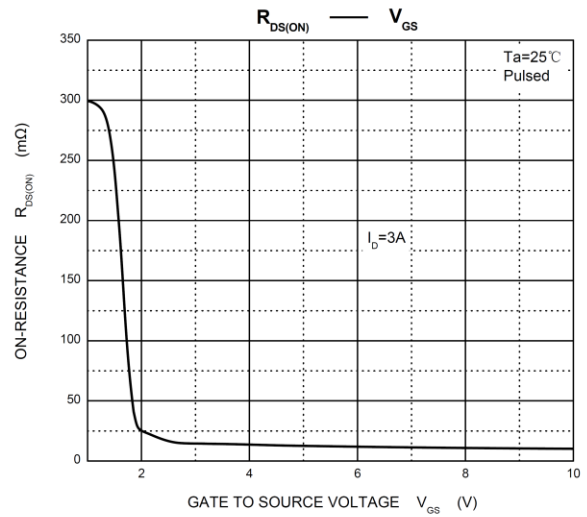
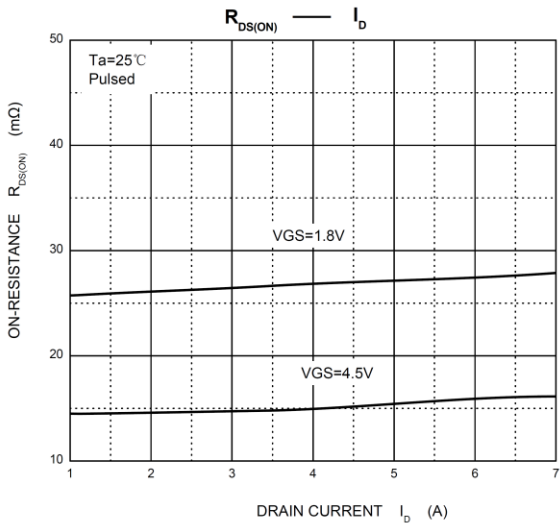
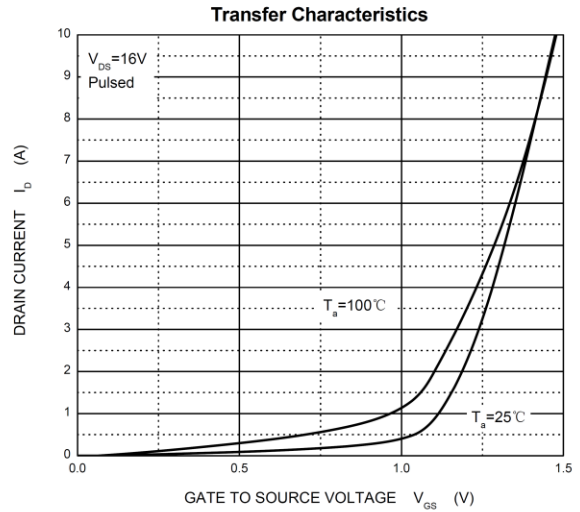
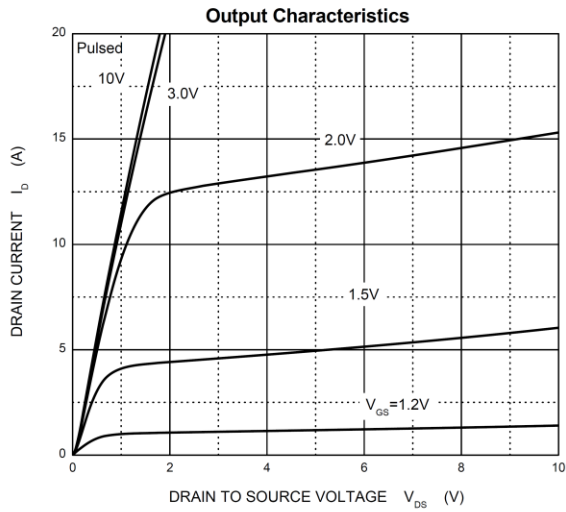
MOSFET ELECTRICAL CHARACTERISTICS(T_a=25°C unless otherwise noted)

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} =16V, V _{GS} = 0V			1	μA
Gate-body Leakage Current	I _{GSS}	V _{GS} =±4.5V, V _{DS} = 0V			±1	
		V _{GS} =±8V, V _{DS} = 0V			±10	
Gate Threshold Voltage ⁽¹⁾	V _{GS(th)}	V _{DS} =V _{GS} , I _D =250μA	0.4	0.7	1.0	V
Drain-source On-resistance ⁽¹⁾	R _{DS(on)}	V _{GS} =4.5V, I _D =5A	10.5	12.3	17	mΩ
		V _{GS} =3.8V, I _D =5A	11.5	13	19	
		V _{GS} =3.1V, I _D =4A	12	14	21	
		V _{GS} =2.5V, I _D =3A	13	15.7	23	
Forward Transconductance ⁽¹⁾	g _{FS}	V _{DS} =5V, I _D =7A	9			S
Diode Forward Voltage ⁽¹⁾	V _{DS}	V _{GS} =0V, I _S =1A			1	V
Dynamic Characteristics⁽²⁾						
Input Capacitance	C _{iss}	V _{DS} =10V, V _{GS} =0V, f =0.1MHz		567		pF
Output Capacitance	C _{oss}			109		
Reverse Transfer Capacitance	C _{rss}			17		
Total Gate Charge	Q _g	V _{DS} =10V, V _{GS} =4.5V, I _D =7A		15		nC
Gate-source Charge	Q _{gs}			0.8		
Gate-drain Charge	Q _{gd}			3.2		
Switching Characteristics⁽²⁾						
Turn-on Delay Time	t _{d(on)}	V _{GS} =5V, V _{DD} =10V, R _L =1.35Ω, R _{GEN} =3Ω		6		ns
Turn-on Rise Time	t _r			13		
Turn-off Delay Time	t _{d(off)}			52		
Turn-off Fall Time	t _f			16		

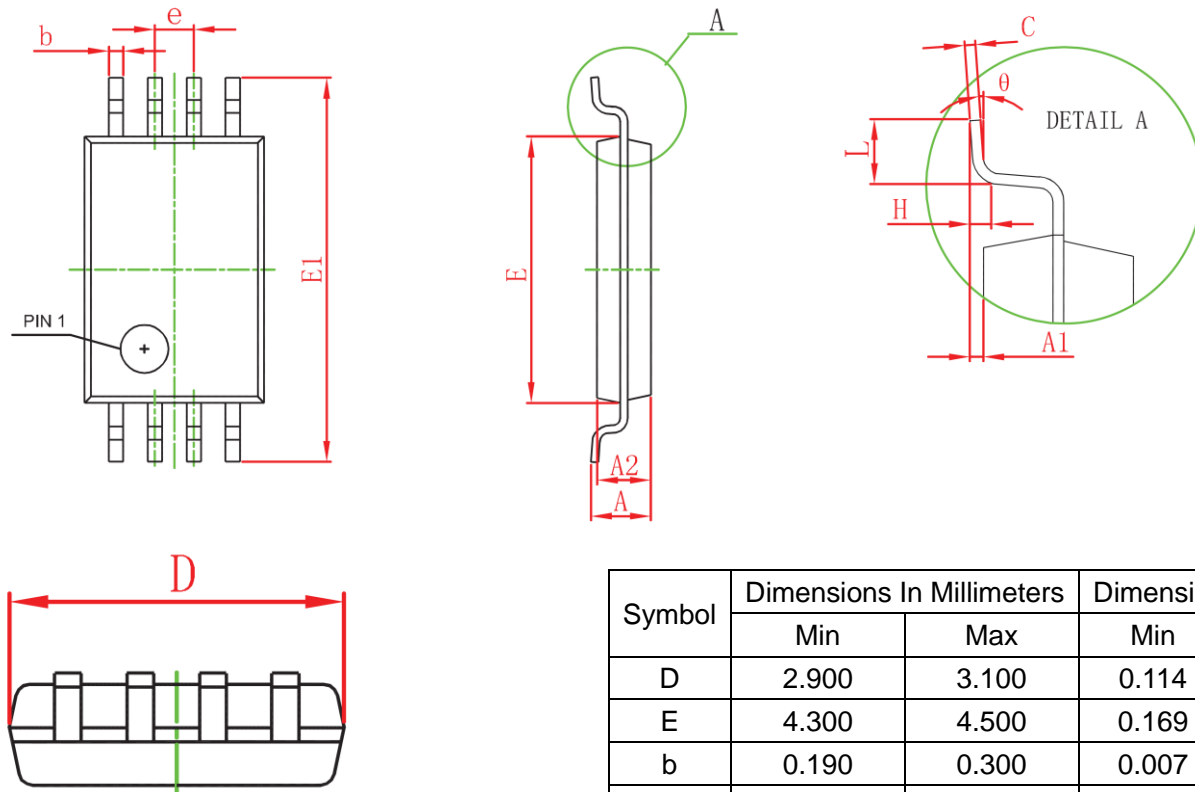
Notes :

1. Pulse Test : Pulse width≤300μs, duty cycle≤0.5%.
2. Guaranteed by design, not subject to production testing..

Typical Electrical and Thermal Characteristics



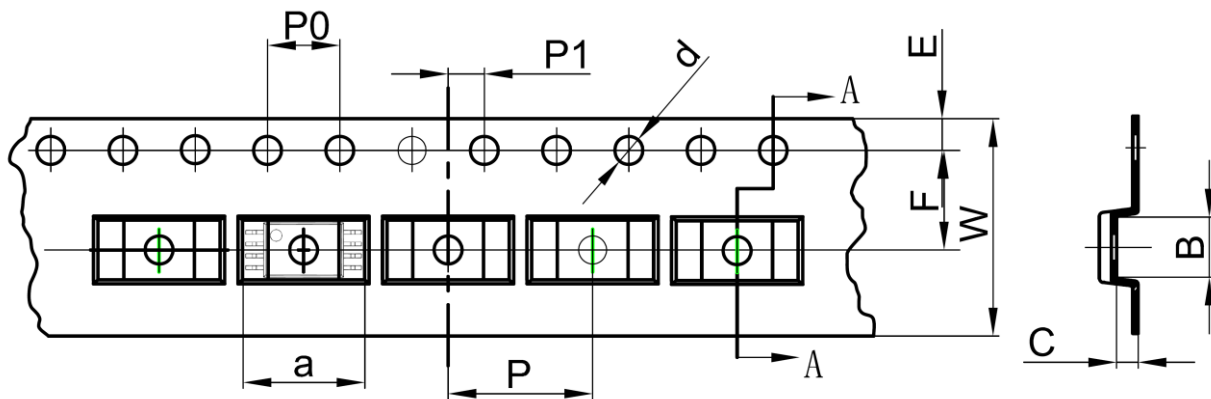
TSSOP8 Package Information



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°

TSSOP8 Tape and Reel

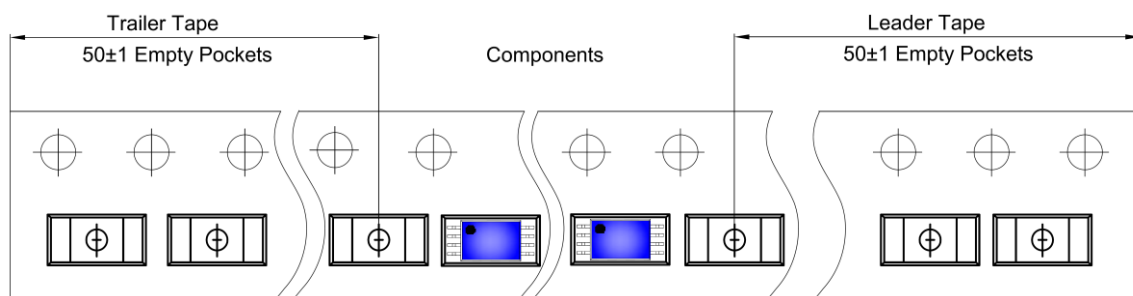
TSSOP8 Embossed Carrier Tape



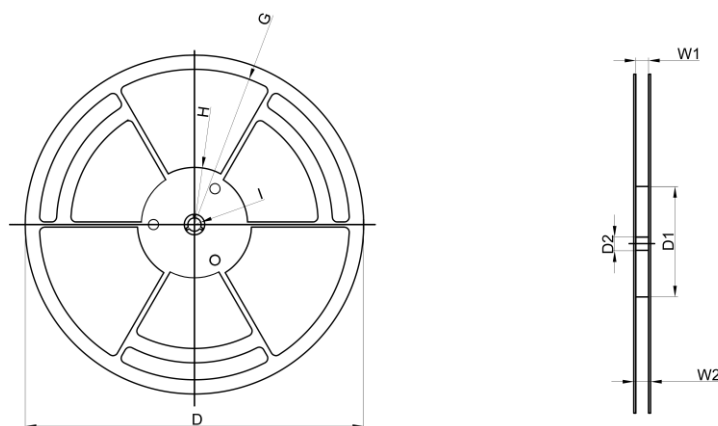
Dimensions are in millimeter

Pkg type	a	B	C	d	E	F	P0	P	P1	W
TSSOP8	6.76	3.30	1.20	Φ1.50	1.75	5.50	4.00	8.00	2.00	12.00

TSSOP8 Tape Leader and Trailer



TSSOP8 Reel



Dimensions are in millimeter

Reel Option	D	D1	D2	G	H	I	W1	W2
13` Dia	Φ330.00	100.00	13.00	R151.00	R56.00	R6.50	12.40	17.60

Reel	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000pcs	13 inch	30,000pcs	336x336x48	24,000pcs	445x355x365	