



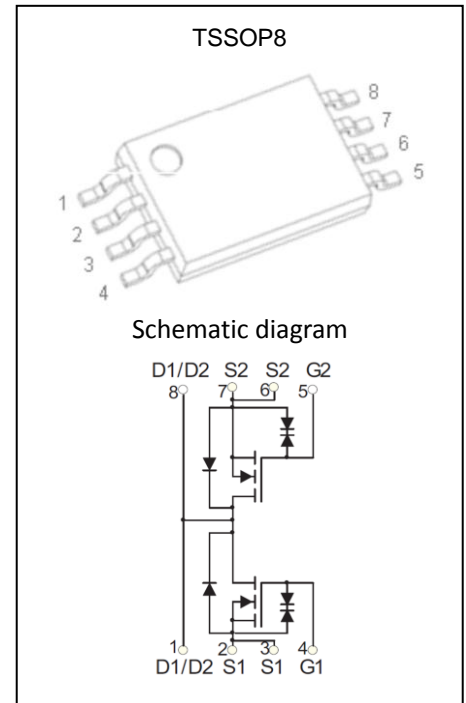
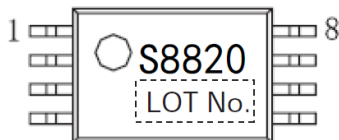
Product Summary

$V_{(BR)DSS}$	$R_{DS(on)TYP}$	I_D
20V	14mΩ@10V	7A
	16mΩ@4.5V	
	18mΩ@3.8V	
	22mΩ@2.5V	
	40mΩ@1.8V	

DESCRIPTION

The GP8820S 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 ($T_a=25^\circ\text{C}$ 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	$^\circ\text{C/W}$
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	$^\circ\text{C}$

* Repetitive rating : Pulse width limited by junction temperature.

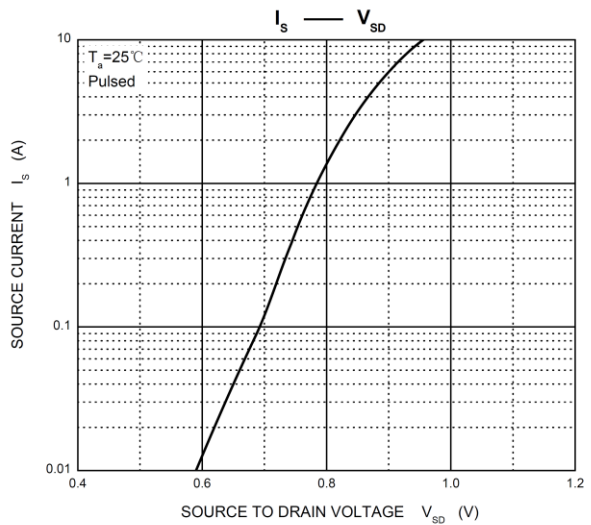
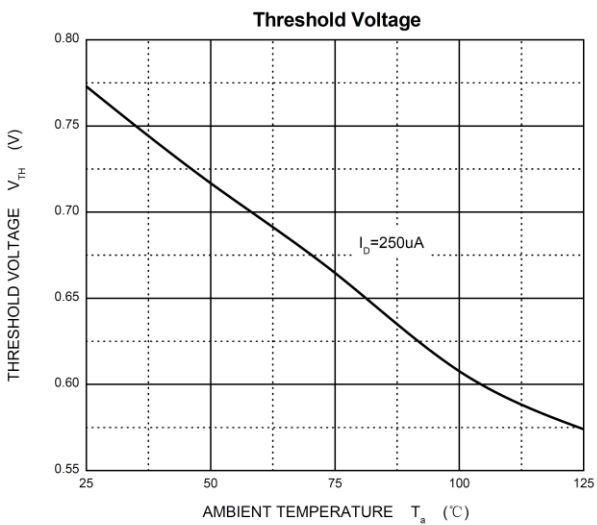
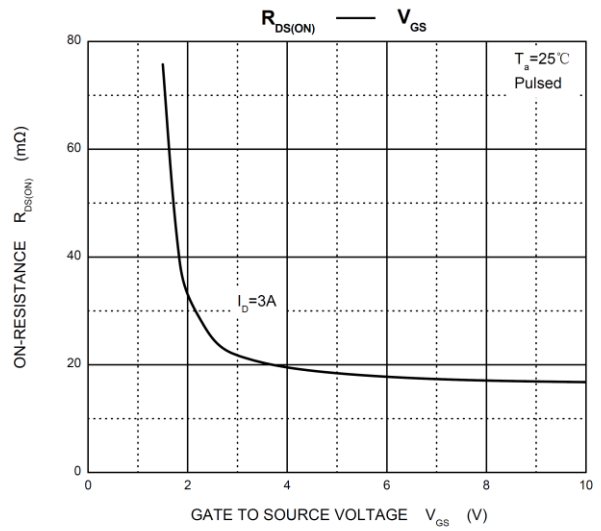
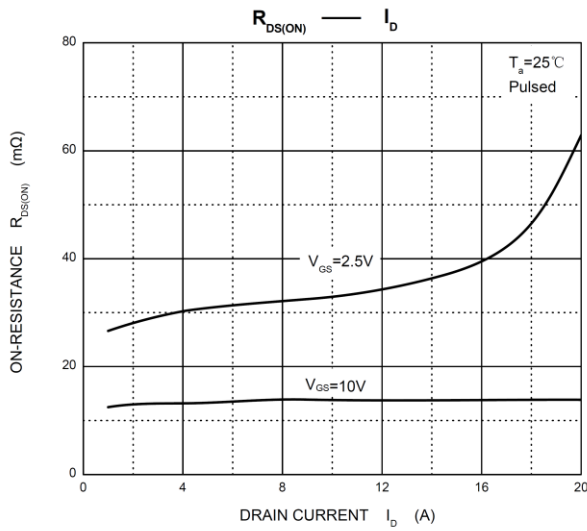
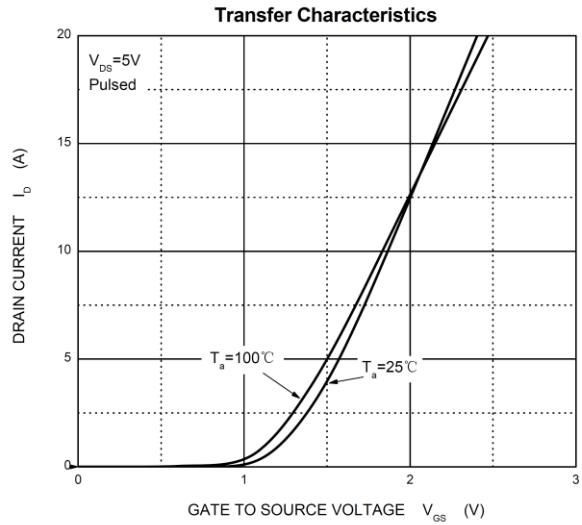
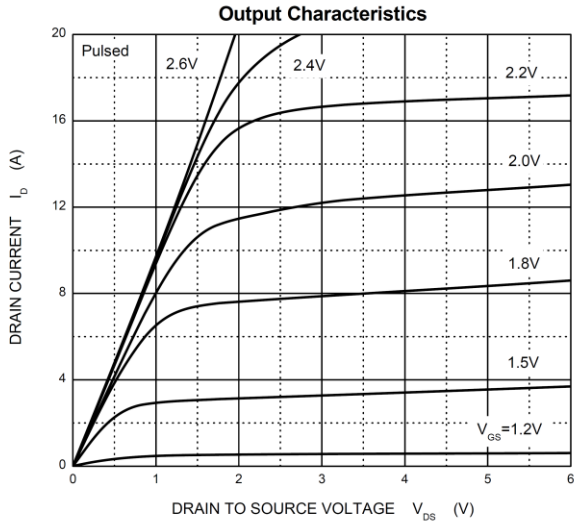
MOSFET ELECTRICAL CHARACTERISTICS($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Type	Max	Unit
Static Characteristics						
Drain-source breakdown voltage	$V_{(BR)DSS}$	$V_{GS} = 0V, I_D = 250\mu A$	20			V
Zero gate voltage drain current	I_{DSS}	$V_{DS} = 16V, V_{GS} = 0V$			1	μA
Gate-body leakage current	I_{GSS}	$V_{GS} = \pm 10V, V_{DS} = 0V$			± 10	
Gate threshold voltage ⁽¹⁾	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = 250\mu A$	0.5	0.75	1.1	V
Drain-source on-resistance ⁽¹⁾	$R_{DS(on)}$	$V_{GS} = 10V, I_D = 7A$	8	14	21	m Ω
		$V_{GS} = 4.5V, I_D = 6.6A$	10	16	24	
		$V_{GS} = 3.8V, I_D = 6A$	12	18	28	
		$V_{GS} = 2.5V, I_D = 5.5A$	16	22	32	
		$V_{GS} = 1.8V, I_D = 2A$	30	40	50	
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}	$V_{DS} = 10V, V_{GS} = 0V, f = 1MHz$		650		pF
Output Capacitance	C_{oss}			140		
Reverse Transfer Capacitance	C_{rss}			60		
Total gate charge	Q_g	$V_{DS} = 10V, V_{GS} = 4.5V, I_D = 6A$		8		nC
Gate-source charge	Q_{gs}			2.5		
Gate-drain charge	Q_{gd}			3		
Switching Characteristics⁽²⁾						
Turn-on delay time	$t_{d(on)}$	$V_{GS} = 5V, V_{DD} = 10V,$ $R_L = 1.5\Omega, R_{GEN} = 3\Omega$		0.5		ns
Turn-on rise time	t_r			1		
Turn-off delay time	$t_{d(off)}$			12		
Turn-off fall time	t_f			4		

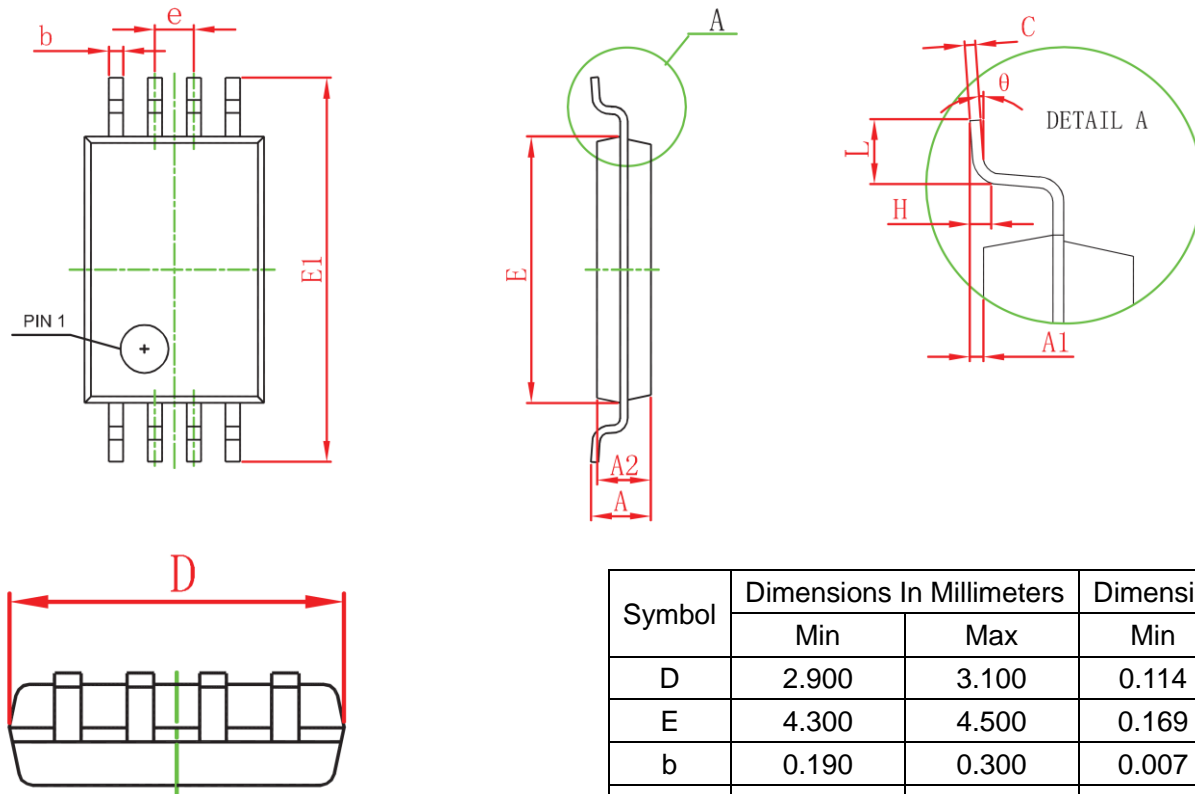
Notes :

1. Pulse Test : Pulse width $\leq 300\mu s$, duty cycle $\leq 0.5\%$.
2. Guaranteed by design, not subject to production testing..

Typical Electrical and Thermal Characteristics



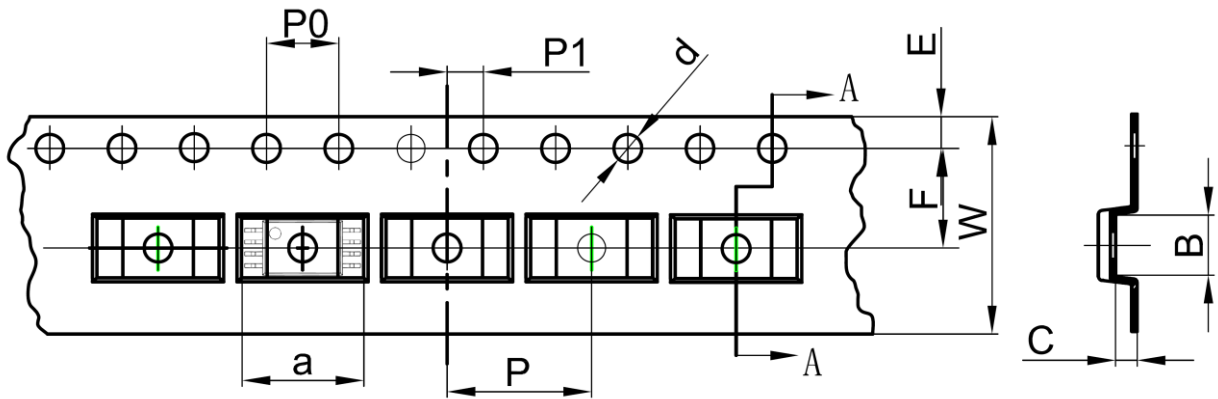
TSSOP8 Package Information



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°

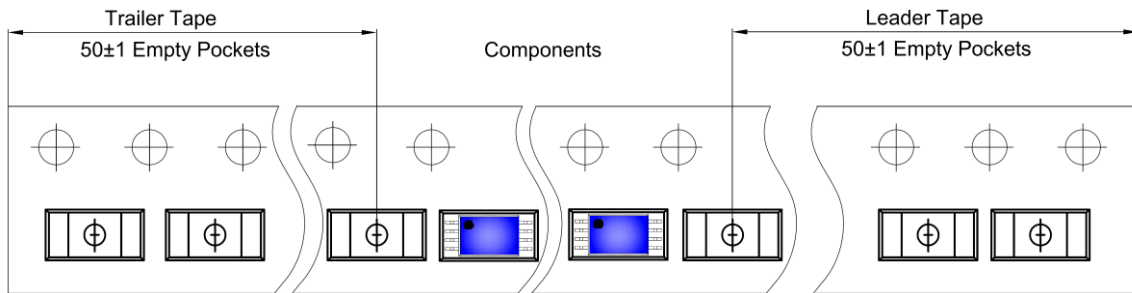
TSSOP8 Tape and Reel

TSSOP8 Embossed Carrier Tape

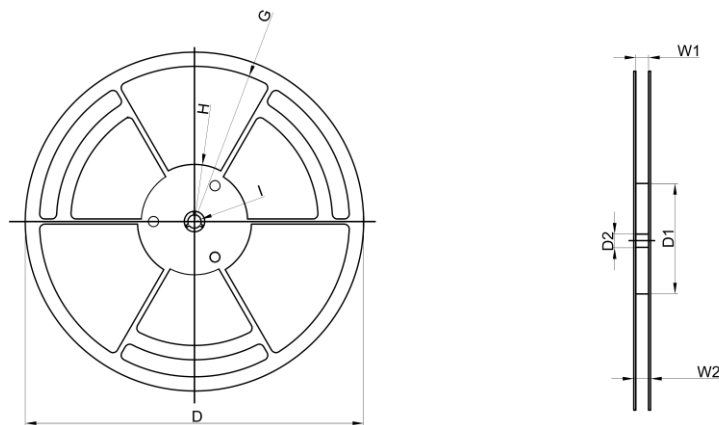


Dimensions are in millimeter										
Pkg type	a	B	C	d	E	F	P0	P	P1	W
TSSOP8	6.76	3.30	1.20	Φ1.50	1.75	5.50	4.00	8.00	2.00	12.00

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	

单击下面可查看定价，库存，交付和生命周期等信息

[>>GP\(格瑞宝\)](#)