

**Product Summary**

$V_{(BR)DSS}$	$R_{DS(on)TYP}$	$I_D$
30V	16mΩ@10V	6.9A
	19mΩ@4.5V	
	30mΩ@2.5V	

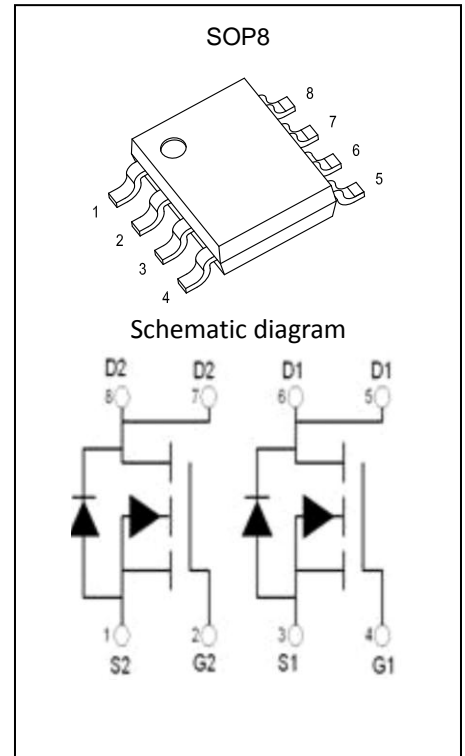
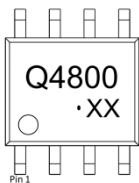
**Feature**

- High cell density trench N-ch MOSFETs
- Super low gate charge
- Advanced high cell density Trench technology

**Application**

- Battery protection applications
- Load switch

**MARKING:**



**ABSOLUTE MAXIMUM RATINGS (T<sub>C</sub>=25°C unless otherwise noted)**

Parameter	Symbol	Value	Unit
Drain-Source Voltage	$V_{DS}$	30	V
Gate-Source Voltage	$V_{GS}$	±12	V
Continuous Drain Current	$I_D$	6.9	A
Pulsed Drain Current	$I_{DM}$	28	A
Power Dissipation	$P_D$	1.25	W
Thermal Resistance from Junction to Ambient	$R_{θJA}$	100	°C/W
Junction Temperature	$T_J$	150	°C
Storage Temperature	$T_{STG}$	-55~ +150	°C

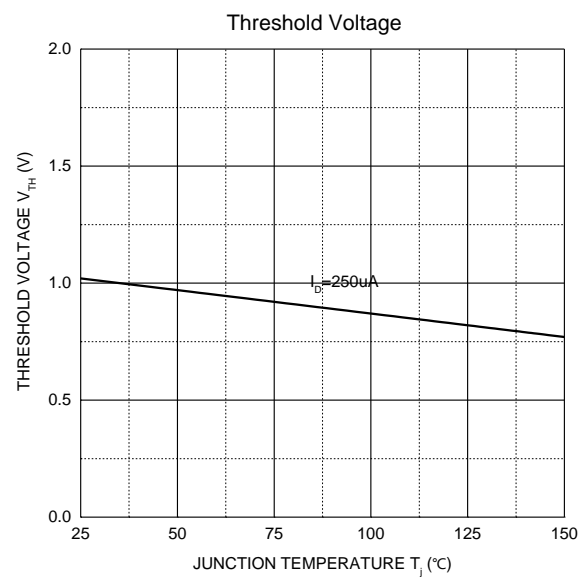
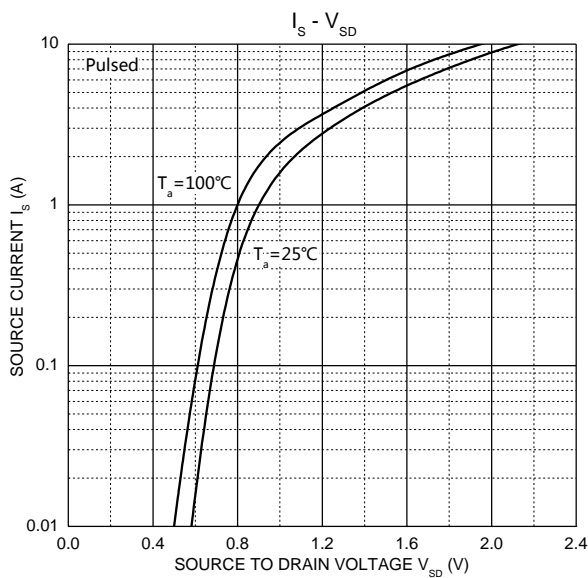
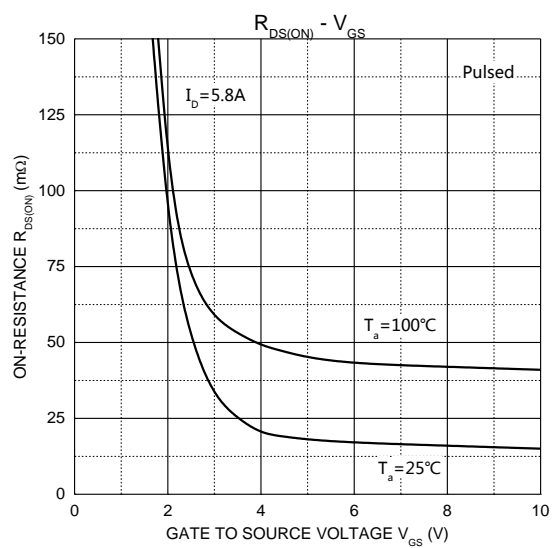
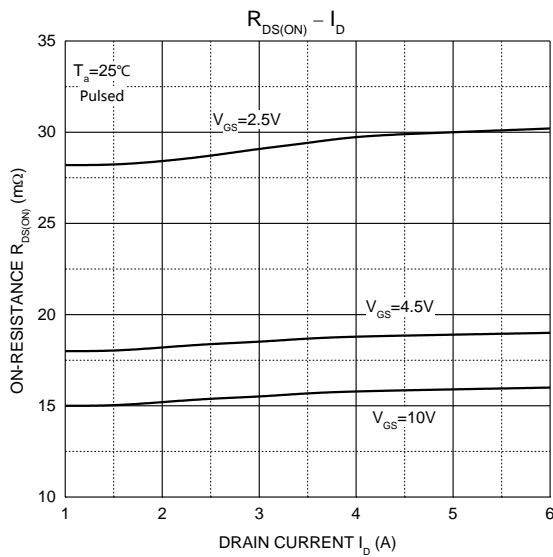
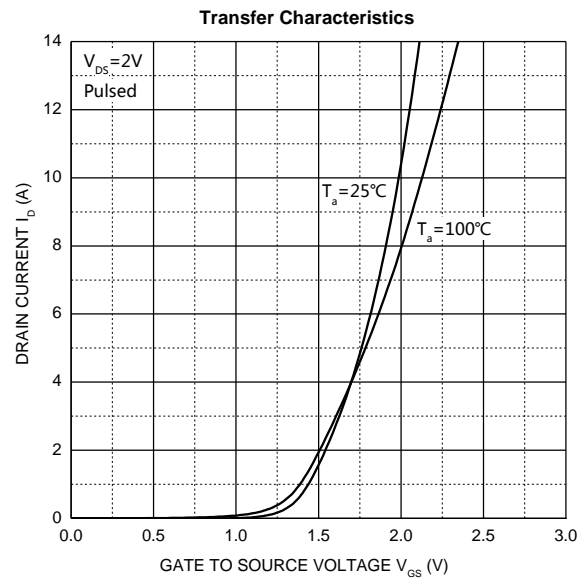
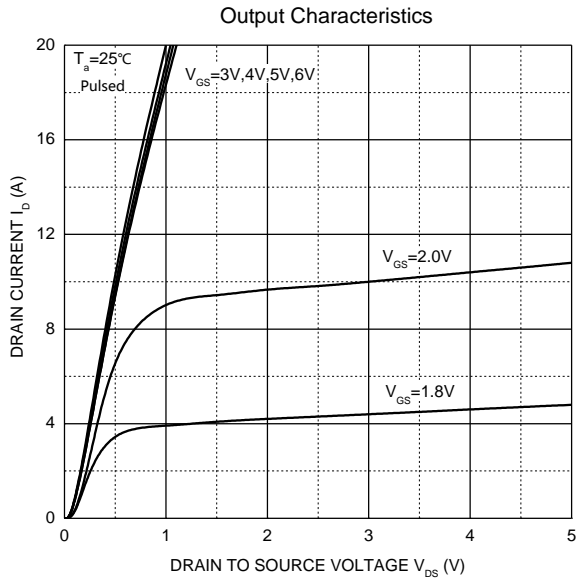
**MOSFET ELECTRICAL CHARACTERISTICS ( $T_J=25^{\circ}\text{C}$  unless otherwise noted)**

Parameter	Symbol	Test Condition	Min	Type	Max	Unit
<b>Static Characteristics</b>						
Drain-source breakdown voltage	$V_{(BR)DSS}$	$V_{GS} = 0V, I_D = 250\mu A$	30			V
Zero gate voltage drain current	$I_{DSS}$	$V_{DS} = 30V, V_{GS} = 0V$			1	$\mu A$
Gate-body leakage current	$I_{GSS}$	$V_{GS} = \pm 12V, V_{DS} = 0V$			$\pm 0.1$	$\mu A$
Gate threshold voltage <sup>1</sup>	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = 250\mu A$	0.7	1.0	1.4	V
Drain-source on-resistance <sup>1</sup>	$R_{DS(on)}$	$V_{GS} = 10V, I_D = 6.9A$		16	21	m $\Omega$
		$V_{GS} = 4.5V, I_D = 6A$		19	25	
		$V_{GS} = 2.5V, I_D = 5A$		30	40	
Forward transconductance <sup>1</sup>	$g_{FS}$	$V_{DS} = 5V, I_D = 5A$	8	12		S
<b>Dynamic characteristics<sup>2</sup></b>						
Input Capacitance	$C_{iss}$	$V_{DS} = 15V, V_{GS} = 0V, f = 1MHz$			1155	pF
Output Capacitance	$C_{oss}$			108		
Reverse Transfer Capacitance	$C_{rss}$			84		
Gate resistance	$R_g$	$V_{DS} = 0V, V_{GS} = 0V, f = 1MHz$			3.6	$\Omega$
<b>Switching Characteristics<sup>2</sup></b>						
Turn-on delay time	$t_{d(on)}$	$V_{GS} = 10V, V_{DS} = 15V,$ $R_L = 2.7\Omega, R_{GEN} = 3\Omega$			5	ns
Turn-on rise time	$t_r$				7	
Turn-off delay time	$t_{d(off)}$				40	
Turn-off fall time	$t_f$				6	
<b>Source-Drain Diode characteristics</b>						
Diode Forward voltage <sup>1</sup>	$V_{SD}$	$V_{GS} = 0V, I_S = 1A$			1	V

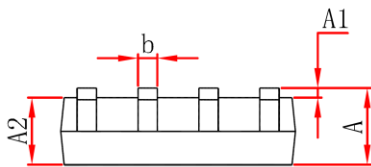
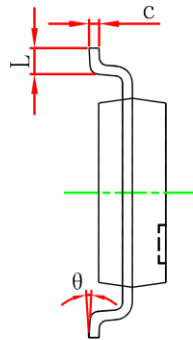
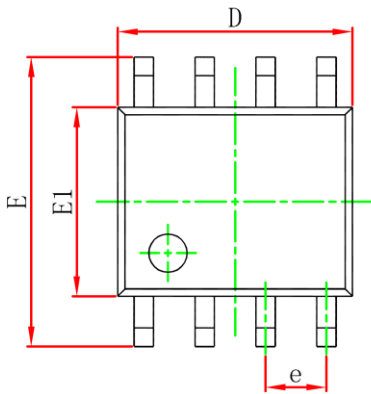
Notes:

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

**Typical Electrical and Thermal Characteristics**



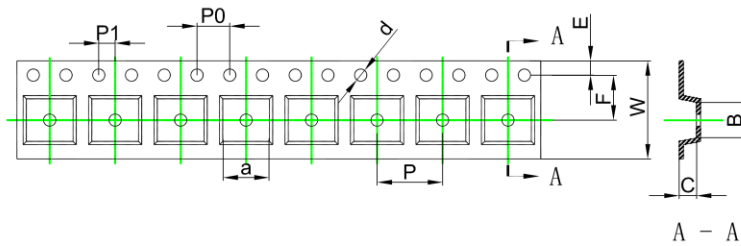
**SOP8 Package Information**



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.350	1.750	0.053	0.069
A1	0.100	0.250	0.004	0.010
A2	1.350	1.550	0.053	0.061
b	0.330	0.510	0.013	0.020
c	0.170	0.250	0.007	0.010
D	4.800	5.000	0.189	0.197
e	1.270 (BSC)		0.050 (BSC)	
E	5.800	6.200	0.228	0.244
E1	3.800	4.000	0.150	0.157
L	0.400	1.270	0.016	0.050
θ	0°	8°	0°	8°

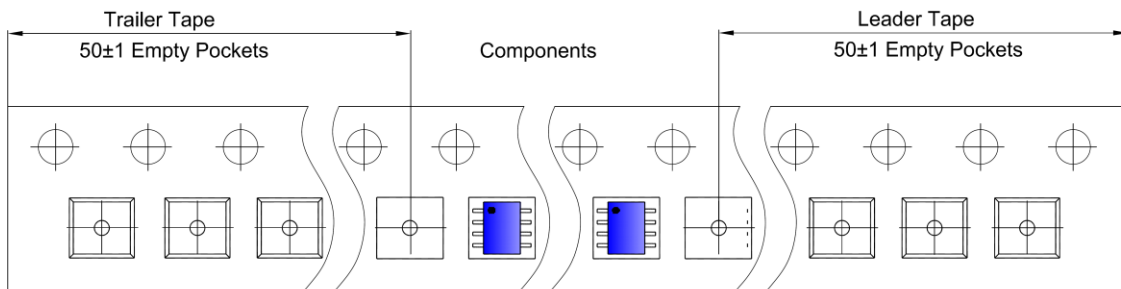
**SOP8 Tape and Reel**

**SOP8 Embossed Carrier Tape**

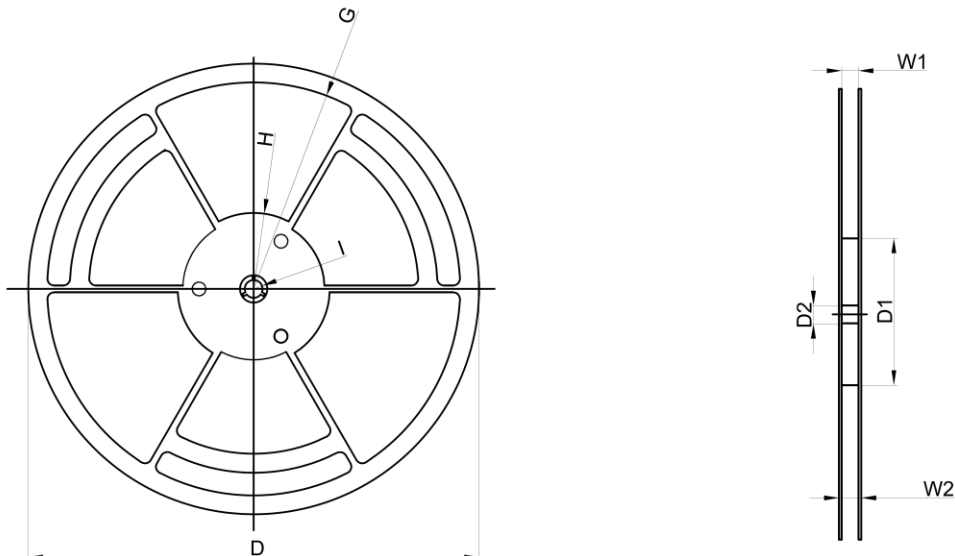


Dimensions are in millimeter										
Pkg type	a	B	C	d	E	F	P0	P	P1	W
SOP8	6.40	5.40	2.10	Ø1.50	1.75	5.50	4.00	8.00	2.00	12.00

**SOP8 Tape Leader and Trailer**



**SOP8 Reel**



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
13" Dia	Ø330.00	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)
4,000 pcs	13 inch	8,000 pcs	360×360×65	64,000 pcs	565×380×390	

单击下面可查看定价，库存，交付和生命周期等信息

[>>GP\(格瑞宝\)](#)