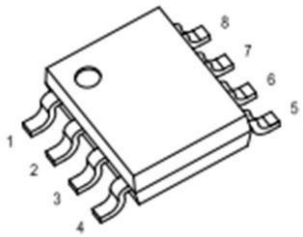
SR4800Q

30V Dual N-Channel MOSFET

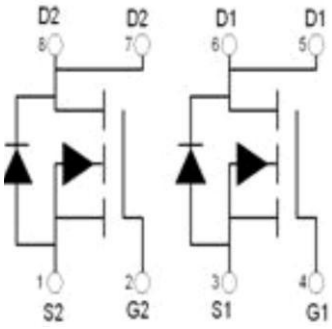
Product Summary

$V_{(BR)DSS}$	$R_{DS(on)MAX}$	I_D
30V	27mΩ@10V	6.9A
	32mΩ@4.5V	
	50mΩ@2.5V	

SOP8



Schematic diagram



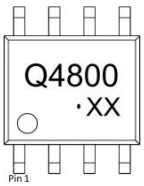
Feature

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

Application

- Battery protection applications
- Load switch

MARKING:



ABSOLUTE MAXIMUM RATINGS (T_C=25℃ 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	$R_{\theta JA}$	100	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55~ +150	℃

MOSFET ELECTRICAL CHARACTERISTICS (T_J=25℃ 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	30			V
Zero gate voltage drain current	I_{DSS}	V_{DS} =30V,V_{GS} = 0V			1	μA
Gate-body leakage current	I_{GSS}	V_{GS} =±12V, V_{DS} = 0V			±0.1	μA
Gate threshold voltage[1]	$V_{GS(th)}$	V_{DS} =V_{GS}, I_D =-250μA	0.7	1.0	1.4	V
Drain-source on-resistance[1]	$R_{DS(on)}$	V_{GS} =10V, I_D =6.9A		20	27	mΩ
		V_{GS} =4.5V, I_D =6A		22	32	
		V_{GS} =2.5V, I_D =5A		25	50	
Forward tranconductance[1]	g_{FS}	V_{DS} =5V, I_D =5A	8			S
Dynamic characteristics[2]						
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	Ω
Switching Characteristics[2]						
Turn-on delay time	$t_{d(on)}$	V_{GS}=10V,V_{DS}=15V, R_L=2.7Ω,R_{GEN}=3Ω			5	ns
Turn-on rise time	t_r				7	
Turn-off delay time	$t_{d(off)}$				40	
Turn-off fall time	t_f				6	
Source-Drain Diode characteristics						
Diode Forward voltage[1]	V_{SD}	V_{GS} =0V, I_S=1A			1	V

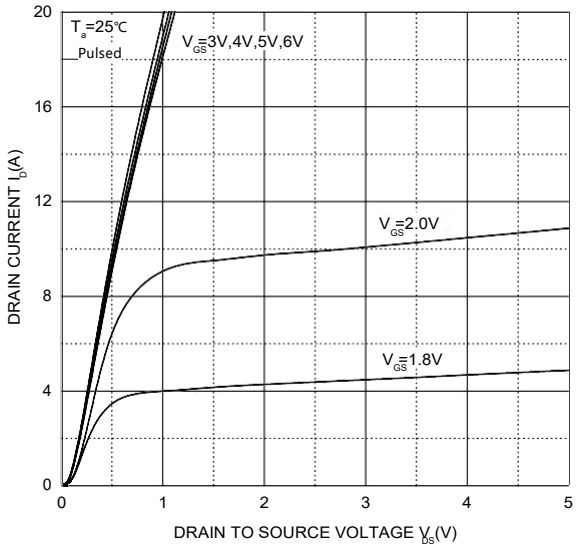
Notes:

1. Pulse Test : Pulse Width≤300μs, duty cycle ≤2%.

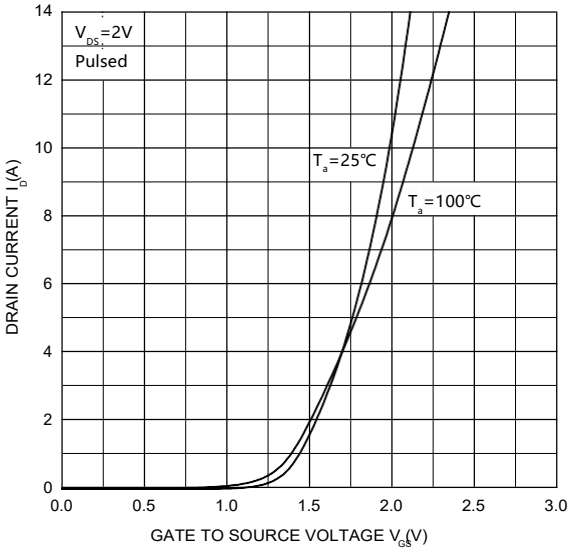
2. Guaranteed by design, not subject to production testing.

Typical Electrical and Thermal Characteristics

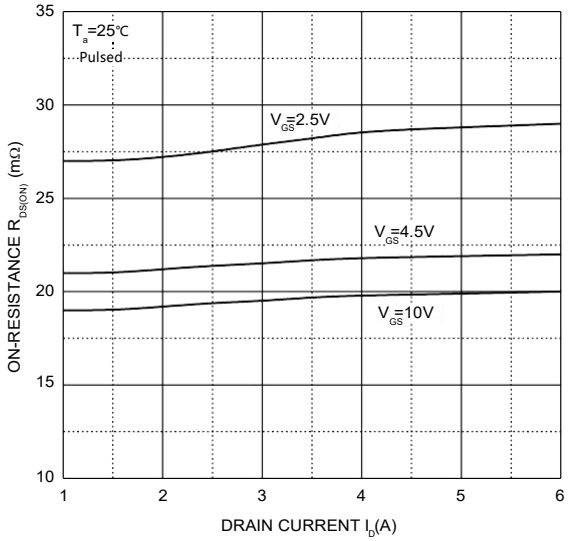
Output Characteristics



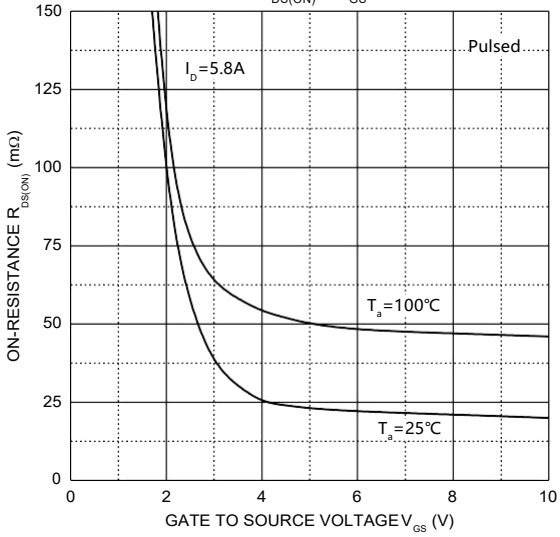
Transfer Characteristics



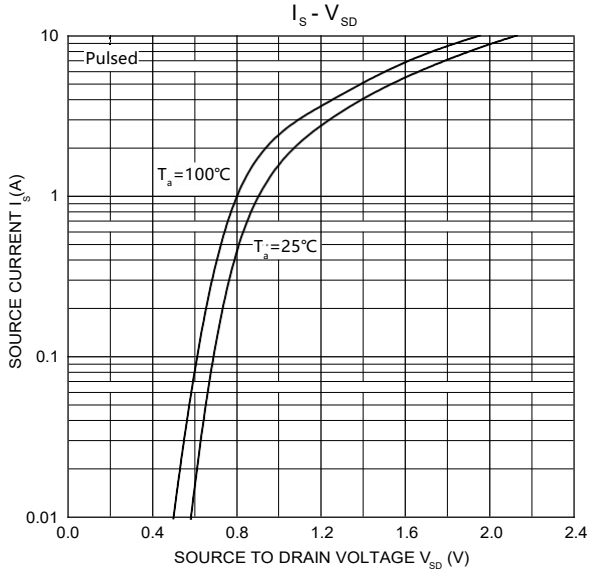
$R_{DS(ON)}$ – I_D



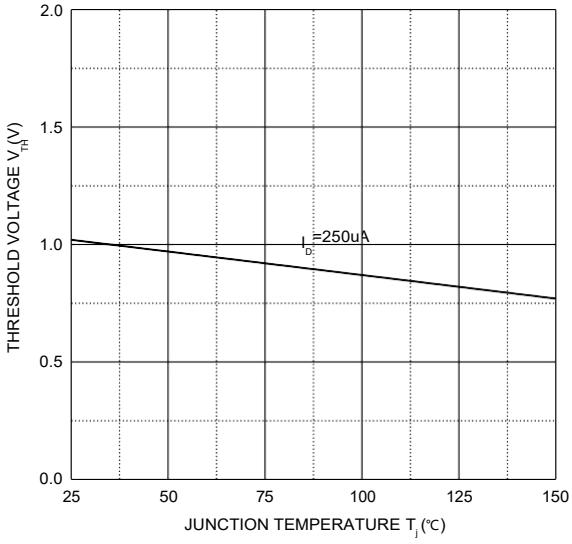
$R_{DS(ON)}$ - V_{GS}



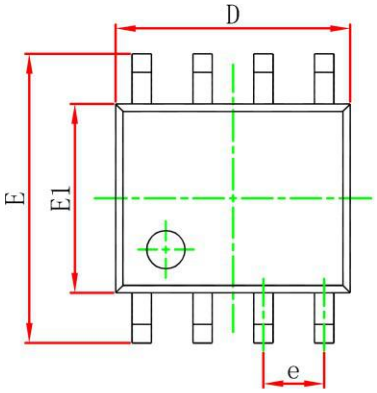
I_S - V_{SD}

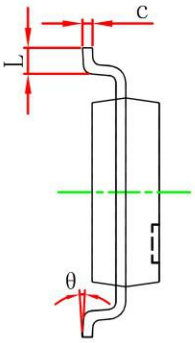


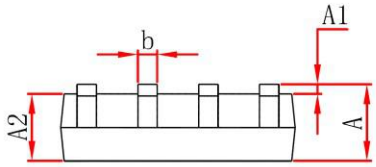
Threshold Voltage



SOP8 Package Information



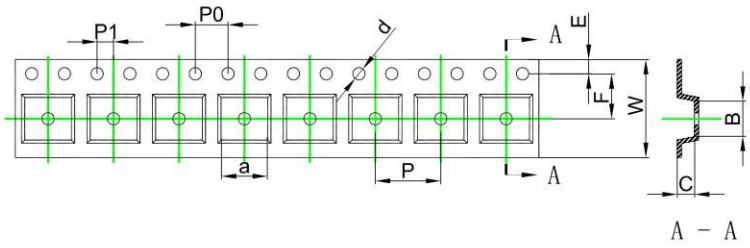




Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	**Max**	**Min**	**Max**
A	1.350	1.750	0.053	0.069
A1	0.100	0.250	0.004	0.010
A2	1.350	1.550	0.053	0.061
b	0.330	0.510	0.013	0.020
c	0.170	0.250	0.007	0.010
D	4.800	5.000	0.189	0.197
e	1.270 (BSC)		0.050 (BSC)	
E	5.800	6.200	0.228	0.244
E1	3.800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

SOP8 Tape and Reel

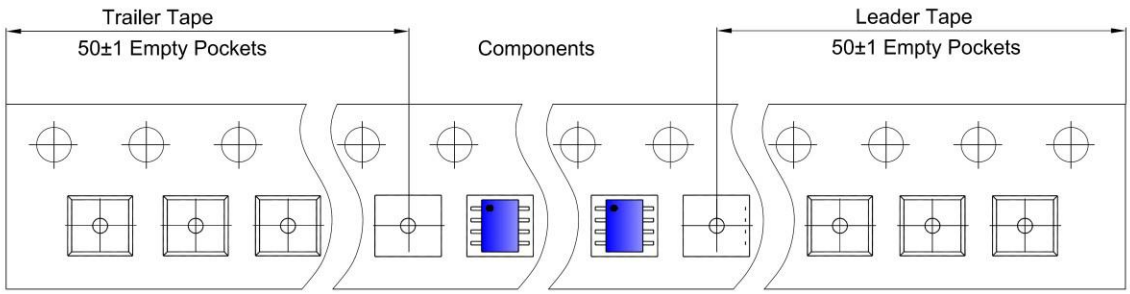
SOP8 Embossed Carrier Tape



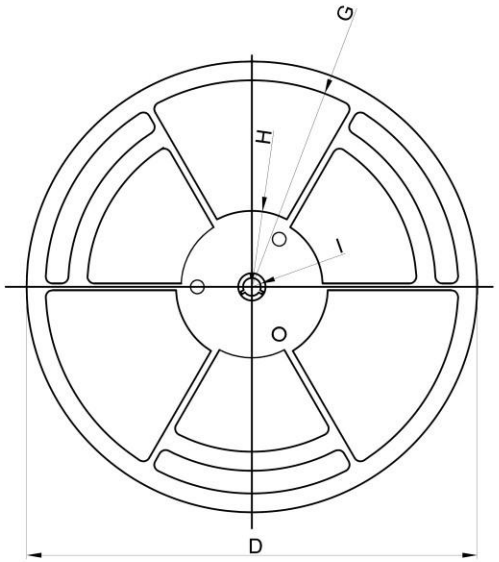
Packaging Description:
SOP8 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 2,500 units per 13" or 33cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).
ALL DIM IN mm

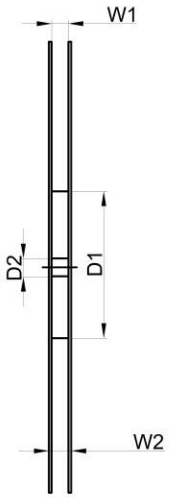
Dimensions are in millimeter										
Pkg type	a	B	C	d	E	F	P0	P	P1	W
SOP8	6.40	5.40	2.10	Ø1.50	1.75	5.50	4.00	8.00	2.00	12.00

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	