

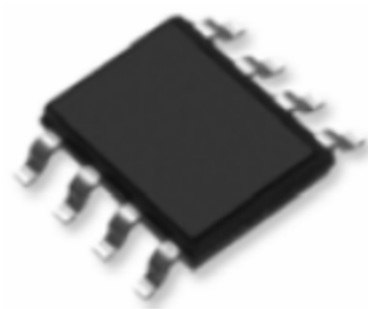
FEATURES

- $R_{DS(ON)} \leq 5.2m\Omega @ V_{GS} = -10V$
- $R_{DS(ON)} \leq 9.5m\Omega @ V_{GS} = -4V$
- Super high density cell design for extremely low $R_{DS(ON)}$
- Exceptional on-resistance and maximum DC current capability

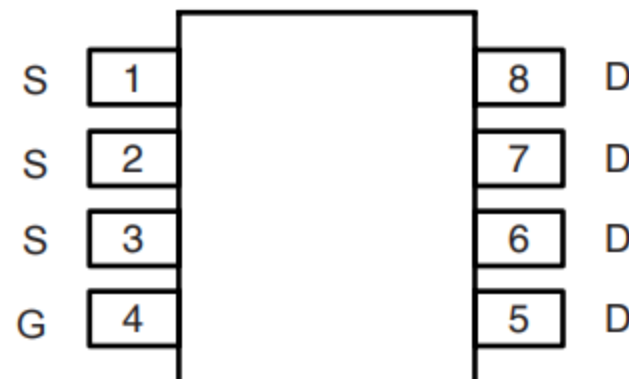
APPLICATIONS

- Power Management in Note book
- Portable Equipment
- Battery Powered System
- DC/DC Converter
- Load Switch
- LCD Display inverter

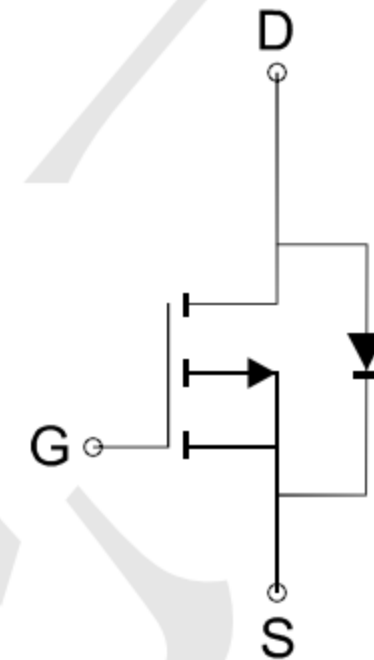
Package and Pin Configuration



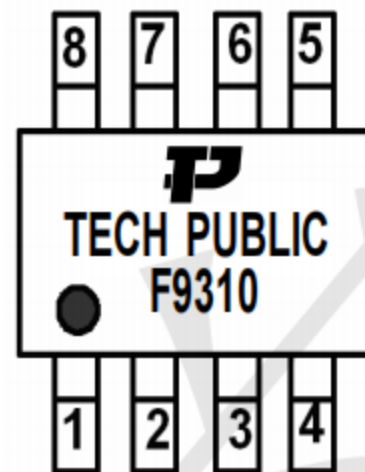
SOP-8



Circuit diagram



Marking:



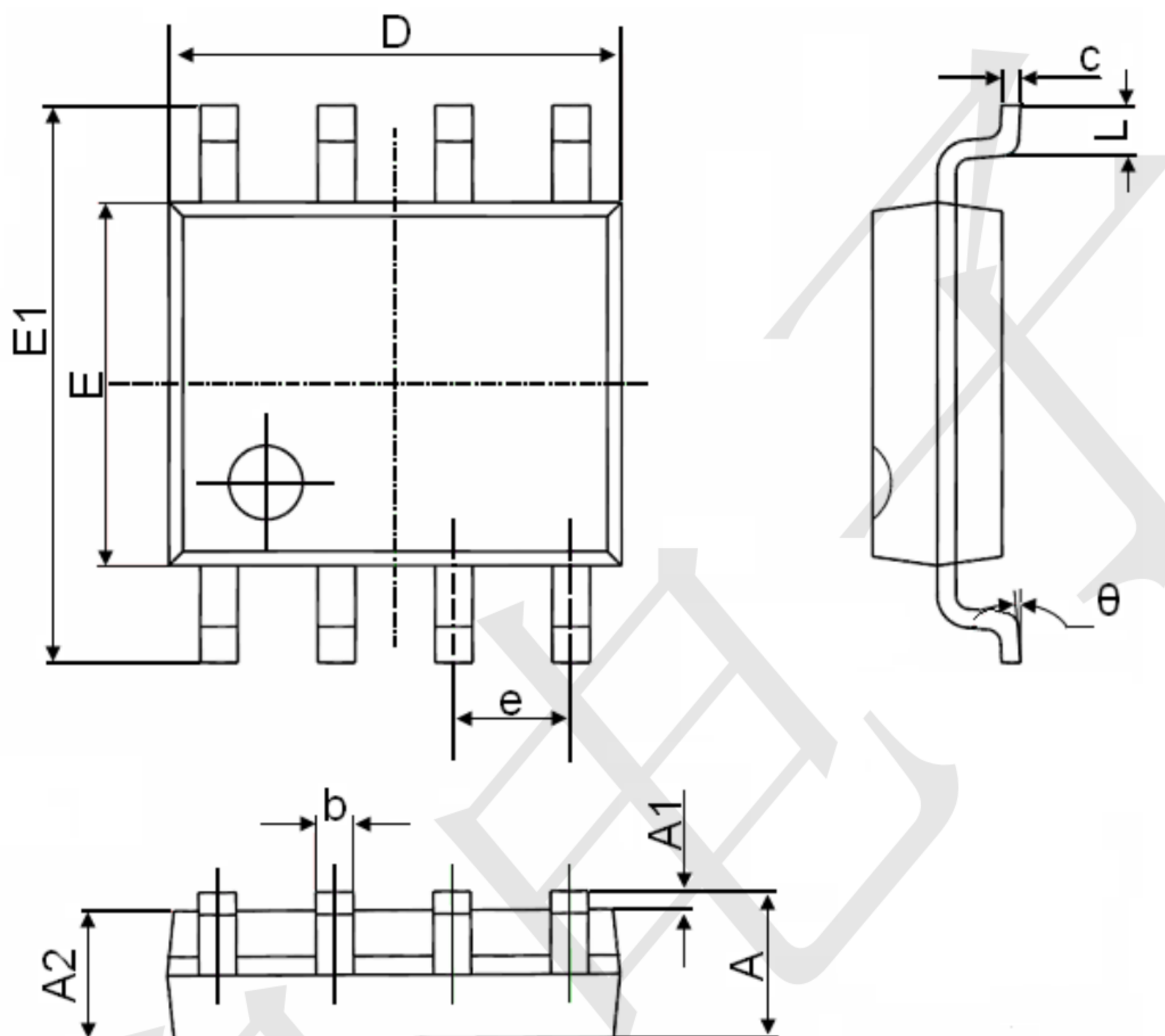
Absolute Maximum Ratings ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Maximum Ratings	Unit
Drain-Source Voltage	V_{DS}	-30	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current	I_D	$T_A = 25^\circ\text{C}$	-20
		$T_A = 70^\circ\text{C}$	-16
Pulsed Drain Current	I_{DM}	-120	A
Maximum Power Dissipation*	P_D	$T_A = 25^\circ\text{C}$	2.5
		$T_A = 70^\circ\text{C}$	1.6
Junction and Storage Temperature Range	T_J, T_{stg}	-55 to 150	$^\circ\text{C}$
Thermal Resistance-Junction to Ambient*	$R_{\theta JA}$	50	$^\circ\text{C}/\text{W}$

Electrical Characteristics (T_j=25°C unless otherwise noted)

Symbol	Parameter	Limit	Min	Typ	Max	Unit
STATIC						
V _{BR(DSS)}	Drain-source breakdown voltage	I _D =-10mA, V _{GS} =0V	-30			V
V _{GS(th)}	Gate Threshold Voltage	V _{GS} = V _{DS} , I _D =-250 μA	-1		-3.0	V
I _{GSS}	Gate Leakage Current	V _{DS} =0V, V _{GS} =±20V			±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =-30V, V _{GS} =0V			-1	μA
R _{DS(ON)}	Drain-Source On-State Resistance ^a	V _{GS} =-10V, I _D = -9A		4	5.2	mΩ
		V _{GS} =-4V, I _D = -9A		7	9.5	
V _{SD}	Diode Forward Voltage	I _D =-18A, V _{GS} =0V		-0.8		V
DYNAMIC						
Q _g	Total Gate Charge	V _{DD} =-24V, V _{GS} =-10V, I _D =-18A		146		nC
Q _g	Total Gate Charge			78		
Q _{gs}	Gate-Source Charge	V _{DD} =-24V, V _{GS} =-4.5V, I _D =-18A		24		
Q _{gd}	Gate-Drain Charge			40		
C _{iss}	Input capacitance	V _{DS} =-15V, V _{GS} =0V, f=1MHz		6150		pF
C _{oss}	Output Capacitance			950		
C _{rss}	Reverse Transfer Capacitance			327		
t _{d(on)}	Turn-On Delay Time	V _{DD} =-15V, R _L =15Ω V _{GS} =-10V, R _G =4.7Ω		75		ns
t _r	Turn-On Rise Time			32		
t _{d(off)}	Turn-Off Delay Time			280		
t _f	Turn-Off Fall Time			88		

SOP-8 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	0.006	0.010
D	4.700	5.100	0.185	0.200
E	3.800	4.000	0.150	0.157
E1	5.800	6.200	0.228	0.244
e	1.270(BSC)		0.050(BSC)	
L	0.400	1.270	0.016	0.050
θ	0°	8°	0°	8°