

Product Summary

$V_{(BR)DSS}$	$R_{DS(on)TYP}$	I_D
-30V	38mΩ@-10V	-5.8A
	58mΩ@-4.5V	

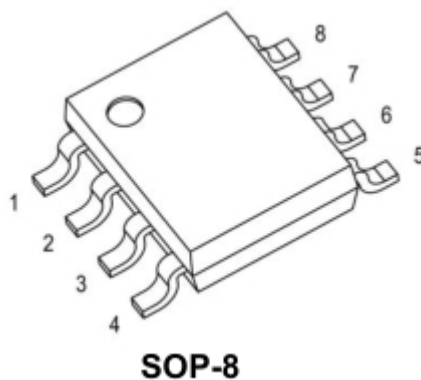
Feature

- TrenchFET Power MOSFET
- Excellent $R_{DS(on)}$ and Low Gate Charge

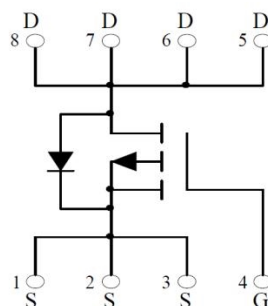
Application

- Load Switch for Portable Devices
- Battery Switch

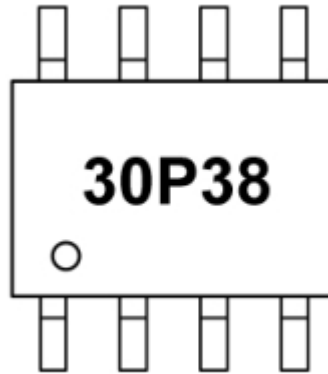
Package



Circuit diagram



Marking



Absolute maximum ratings

(T_a=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V _{DS}	-30	V
Gate-Source Voltage	V _{GS}	±20	V
Continuous Drain Current	I _D	-5.8	A
Plused Drain Current	I _{DM}	-25	A
Power Dissipation	P _D	1.5	W
Thermal Resistance from Junction to Ambient	R _{θJA}	89	°C
Junction Temperature	T _J	150	°C
Storage Temperature	T _{STG}	-55~ +150	°C

Electrical characteristics

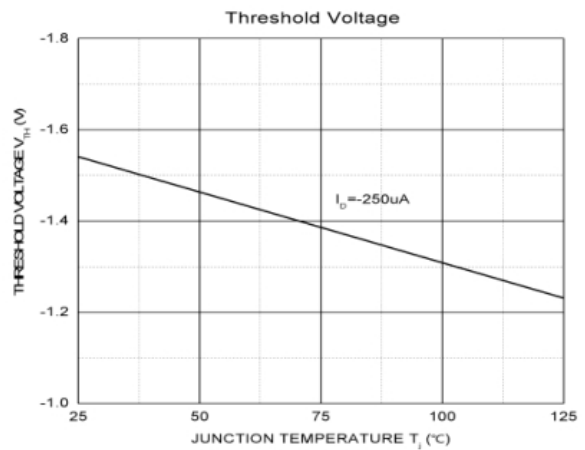
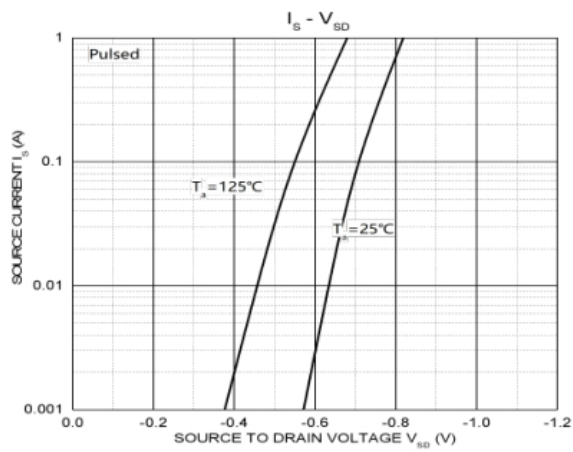
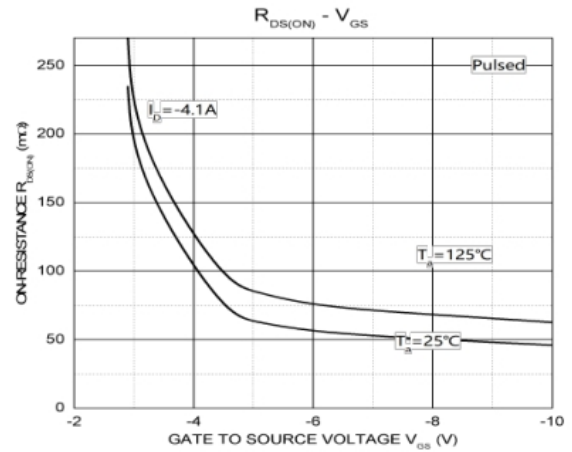
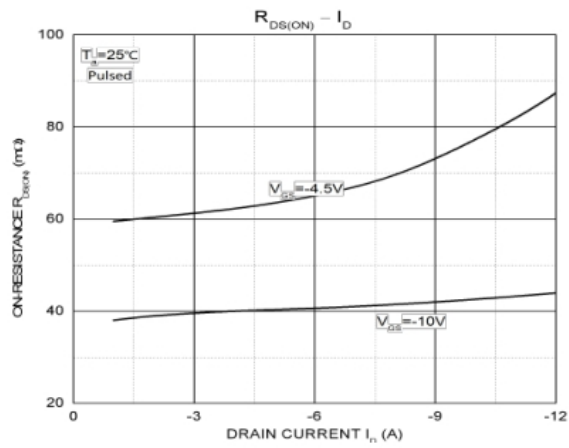
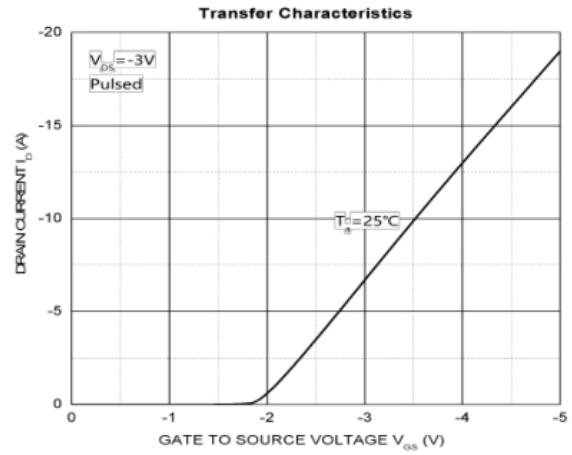
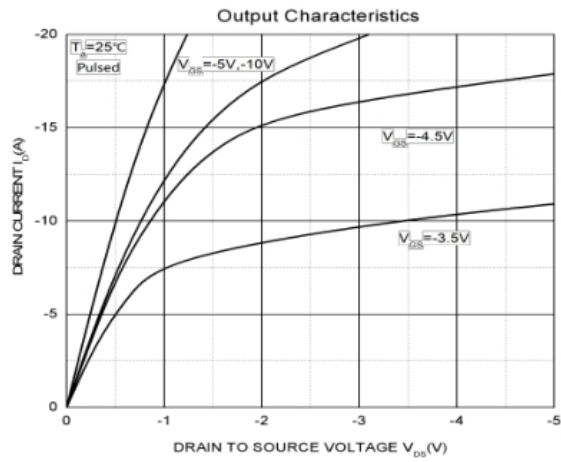
($T_A=25^{\circ}\text{C}$, unless otherwise noted)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Off characteristics						
Drain-Source Breakdown Voltage	BV (BR)DSS	V _{GS} = 0V, I _D = -250μA	-30.5			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = -24V, V _{GS} = 0V			-1	uA
Gate-Source Leakage	I _{GSS}	V _{GS} = ±20V, V _{DS} =0V			±100	uA
On characteristics ²⁾						
Gate-Source Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} , I _D = -250μA	-1.0	-1.5	-2.5	V
Drain-Source On-Resistance ¹	R _{DS(on)}	V _{GS} = -10V, I _D = -4.1A		38	50	mΩ
		V _{GS} = -4.5V, I _D = -3A		58	80	
Switching Characteristics						
Total Gate Charge	Q _g	V _{DS} = -15V , I _D = -4.6A, V _{GS} = -10V,			40	nC
Gate-Source Charge	Q _{gs}			4		
Gate-Drain Charge	Q _{gd}			6.3		
Turn-on Delay Time	T _{d(on)}	V _{DD} = -15V,I _D = -1A, V _{GS} = -10V, R _G =6Ω, R _L =15Ω,			30	nS
Turn-on Rise Time	T _r				60	
Turn-off Delay Time	T _{d(off)}				120	
Turn-off Fall Time	T _f				100	
Drain-Source Diode Characteristics						
Diode Forward Voltage	V _{SD}	I _{SD} = -2.6A,V _{GS} =0V			-1.2	V

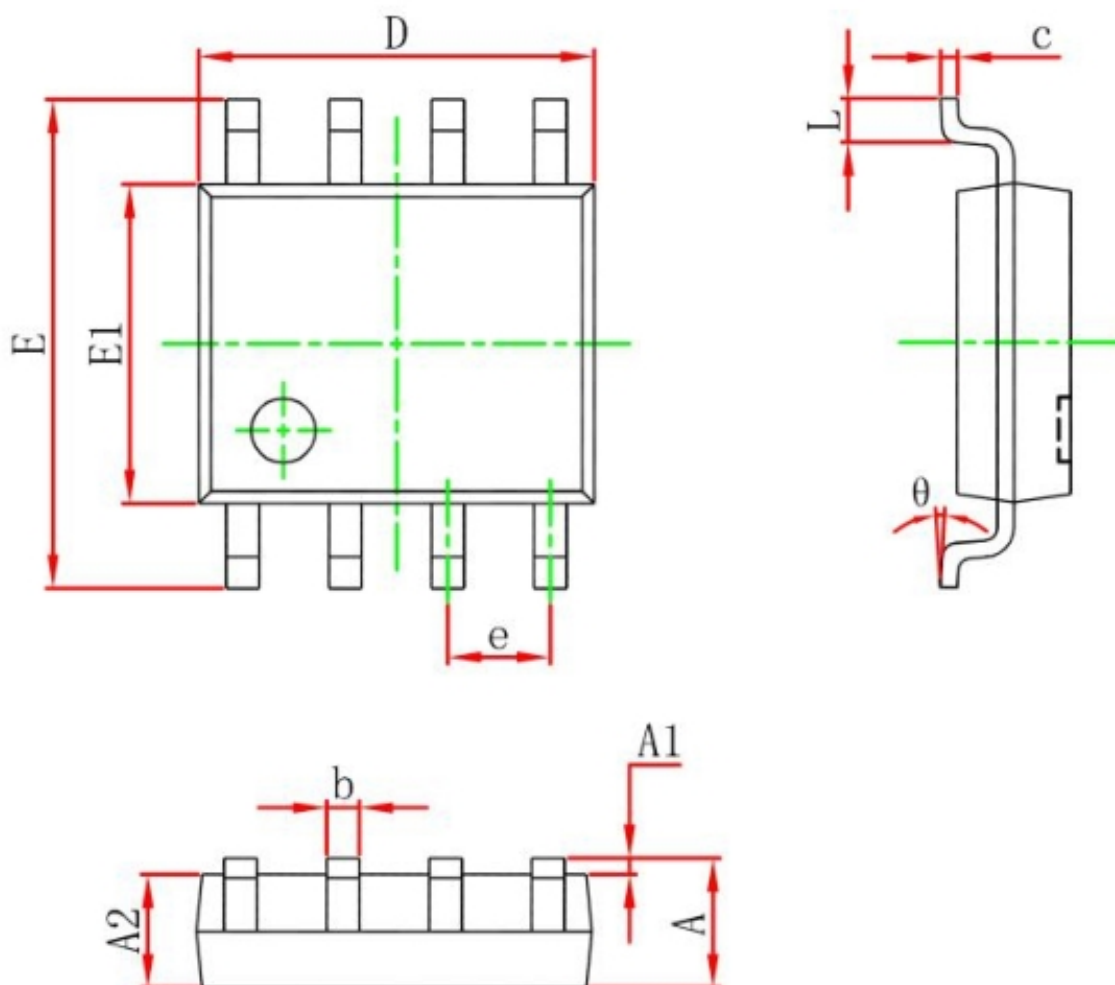
Notes:

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

Typical Characteristics



SOP-8 Package Information



Symbol	Dimensions In Millimeters	
	Min.	Max.
A	1.35	1.75
A1	0.10	0.25
A2	1.35	1.55
b	0.33	0.51
c	0.17	0.25
D	4.80	5.00
e	1.27 REF.	
E	5.80	6.20
E1	3.80	4.00
L	0.40	1.27
θ	0°	8°