

Product Summary

$V_{(BR)DSS}$	$R_{DS(on)TYP}$	I_D
-30V	45mΩ@-10V	-5A
	65mΩ@-4.5V	

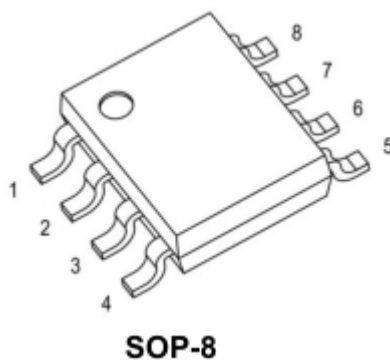
Feature

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

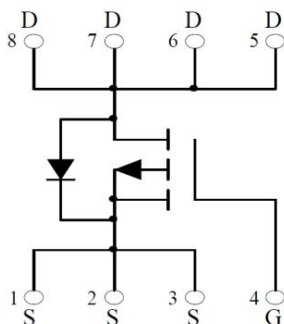
Applications

- Load Switch for Portable Devices
- Battery Switch

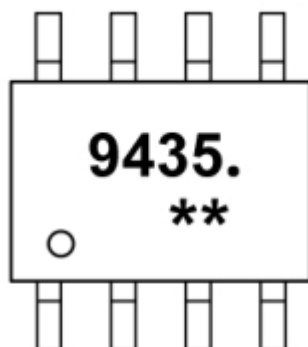
Package



Circuit diagram



Marking



9435. = Device code

** = Date Code

Absolute maximum ratings

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

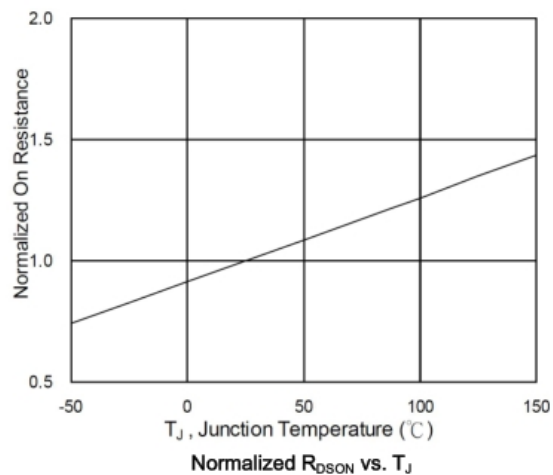
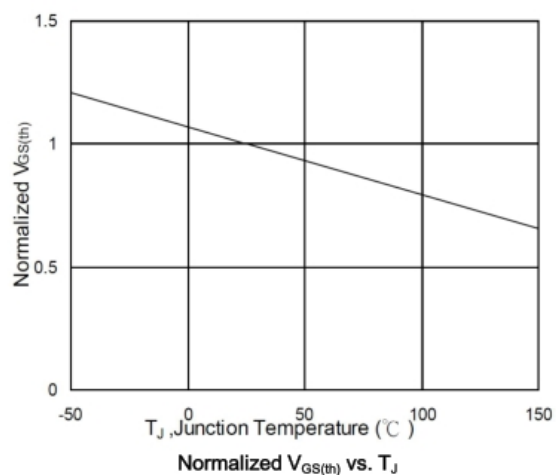
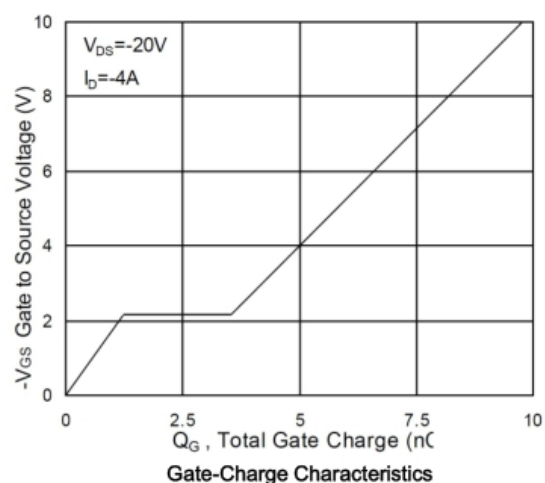
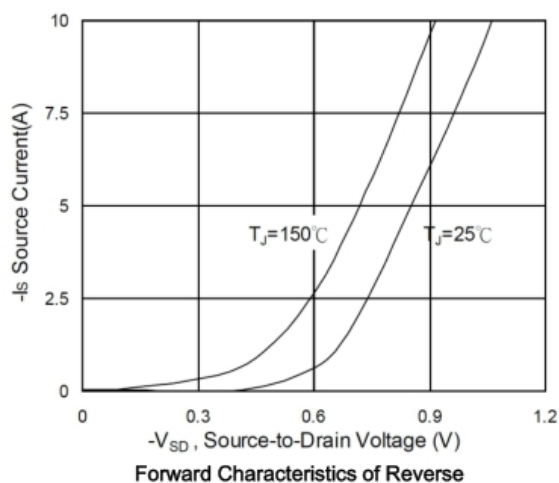
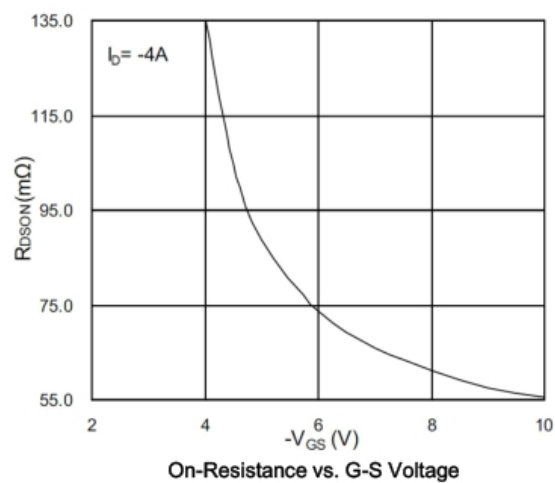
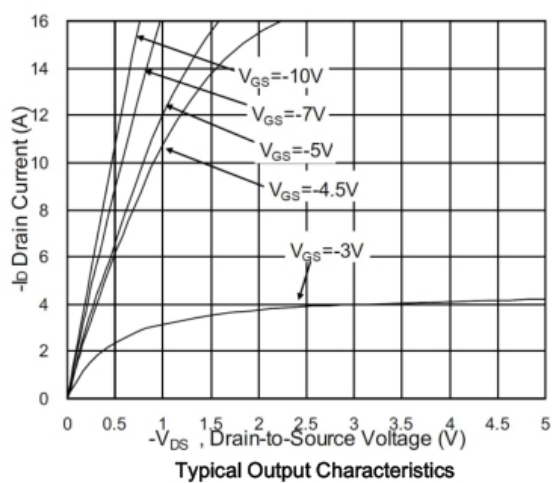
Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	-30	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current	I_D	-5	A
Plused Drain Current	I_{DM}	-20	A
Total Power Dissipation	P_D	1.5	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	55	$^{\circ}\text{C}/\text{W}$
Storage Temperature	T_{STG}	-55 to 150	$^{\circ}\text{C}$
Junction Temperature	T_J	-55 to 150	$^{\circ}\text{C}$

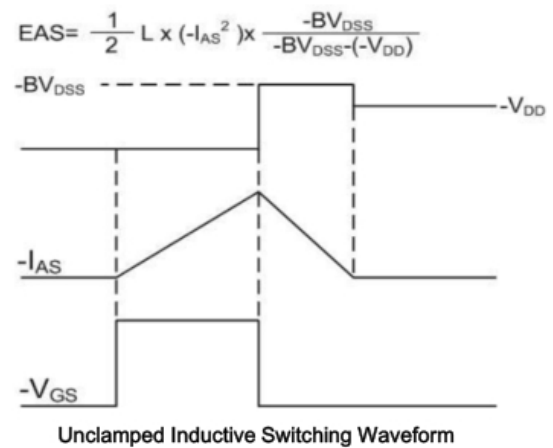
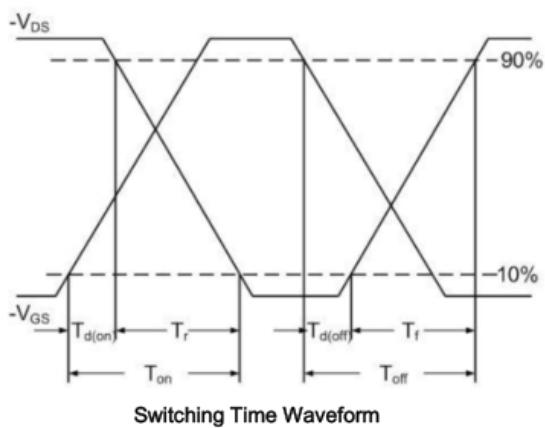
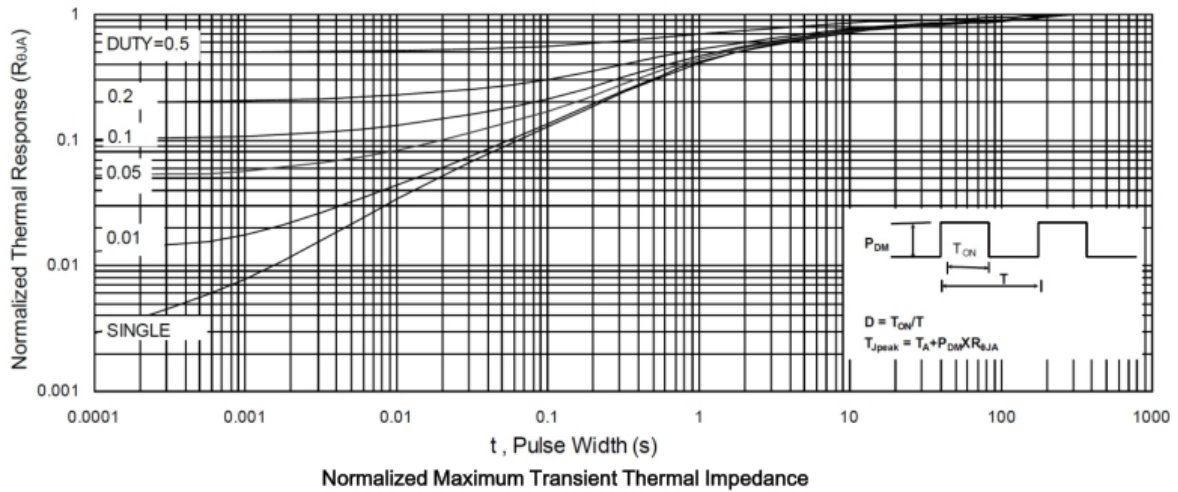
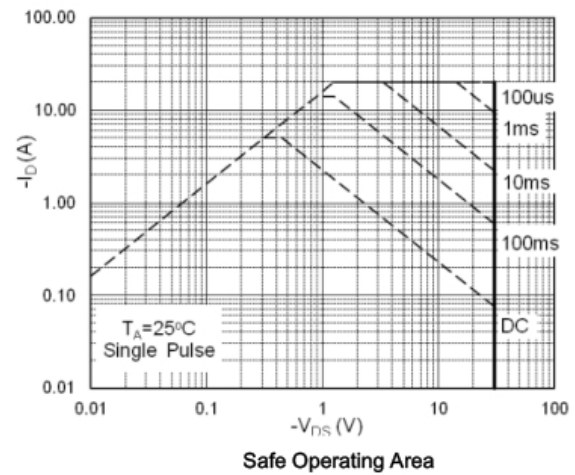
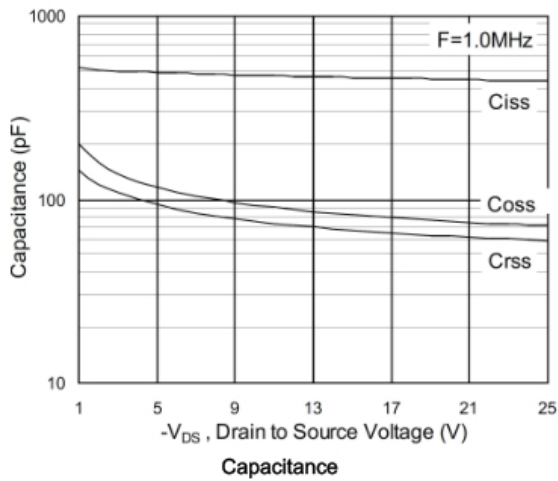
Electrical characteristics

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

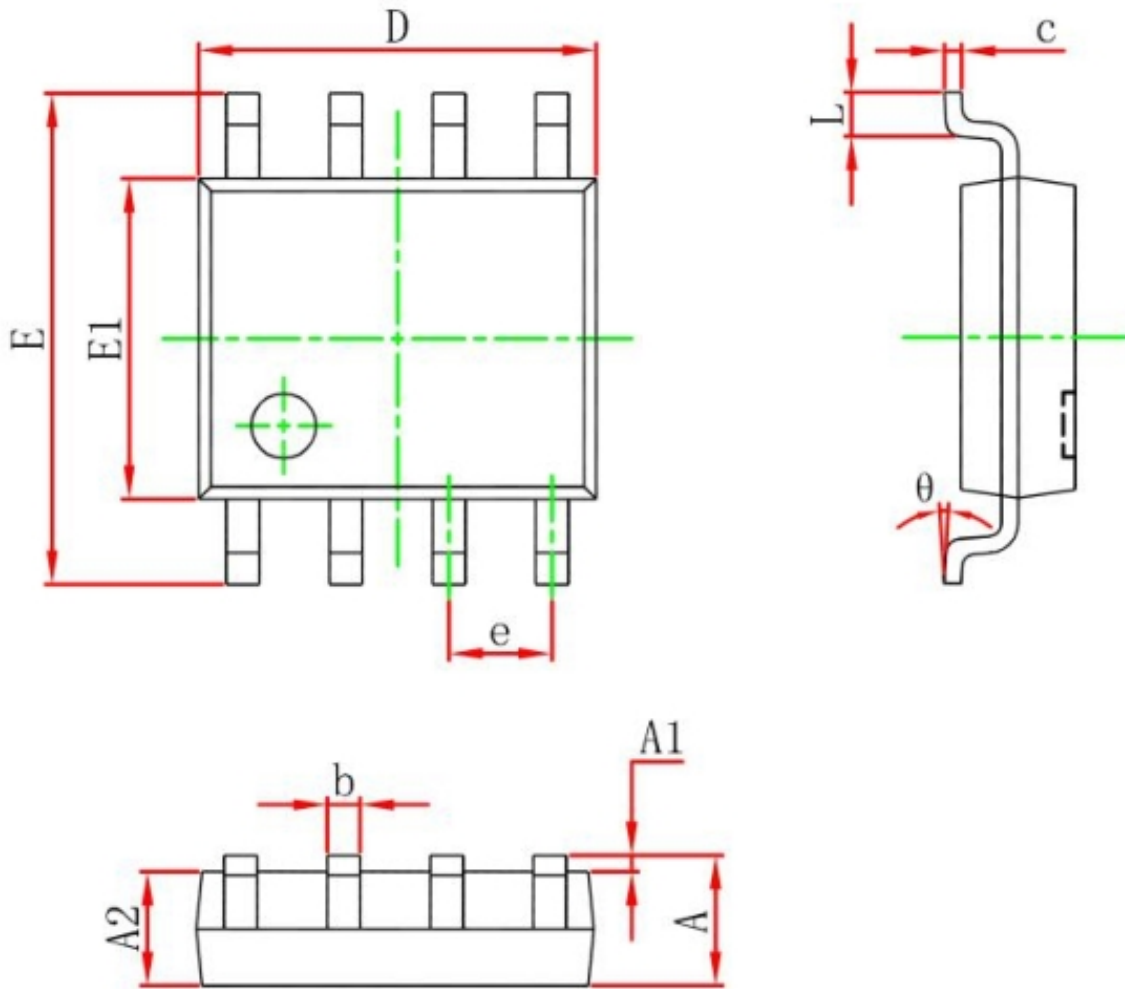
Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Static Characteristics						
Drain-source breakdown voltage	BV (BR)DSS	V _{GS} = 0V, I _D = -250μA	-30			V
Drain-Source Leakage Current	I _{DSS}	V _{DS} = -24V, V _{GS} = 0V			-1	uA
Gate-body leakage current	I _{GSS}	V _{GS} = ±20V, V _{DS} = 0V			±100	uA
Gate threshold voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = -250μA	-1		-2.5	V
Gate Threshold Voltage	R _{DS(on)}	V _{GS} = -10V, I _D = -4A		45	60	mΩ
		V _{GS} = -4.5V, I _D = -2A		65	100	
Forward Transconductance	g _{FS}	V _{DS} =-5V, I _D =-4A		5.5		S
Dynamic Characteristics						
Gate Resistance	R _g	V _{DS} =0V , V _{GS} =0V , f=1MHz		24		Ω
Total gate charge	Q _g	V _{DS} =-20V, V _{GS} =-4.5V, I _D = -4A		5.22		pF
Gate-source charge	Q _{gs}			1.25		
Gate-drain charge	Q _{gd}			2.3		
Turn-on Delay Time	T _{d(on)}	V _{DD} = -15V, V _{GS} =-10V, R _{GEN} =3.3Ω, I _D = -1A		18.4		nS
Turn-on Rise Time	T _r			11.4		
Turn-Off Delay Time	T _{d(off)}			39.4		
Turn-Off Fall Time	t _f			5.2		
Input capacitance	C _{iss}	V _{DS} =-15V, V _{GS} =0V, f=1MHz		463		pF
Output capacitance	C _{oss}			82		
Reverse transfer capacitance	C _{rss}			68		
Source-Drain Diode Characteristics						
Continuous Source Current	I _S	V _G =V _D =0V ,			-5	A
Pulsed Source Current	I _{SM}	Force Current			-20	A
Diode Forward Voltage	V _{SD}	V _{GS} =0V , I _S =-1A , T _J =25°C			-1	V

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°