深圳市三联盛科技股份有限公司
SHENZHEN SLS TECHNOLOGY CO.,LTD.

Stock Code/股票代码 :871699

封装形式/package structure : SOP8

型号/TYPE：SLS4410

The 4410 is the high cell density trenched N-ch MOSFETs, which provide excellent RDSON and gate charge for most of the synchronous buck converter applications.
The 4410 meet the RoHS and Green Product requirement, 100% EAS guaranteed with full function reliability approved.
4410是高单元密度沟道n-ch mosfet，为大多数同步buck变换器应用提供了优良的rdson和栅极电荷。
4410符合RoHS和绿色产品要求，100%EAS保证，全功能可靠性得到认可。

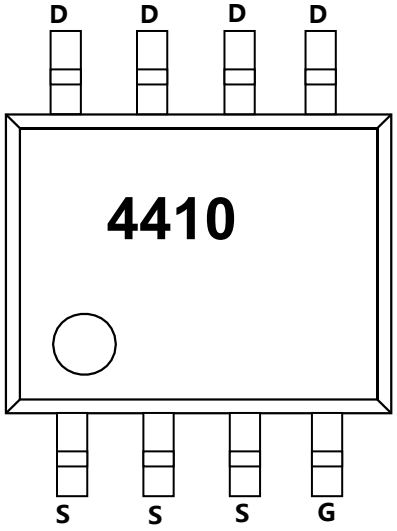
主要特性/Features

N-CH 30V Fast Switching MOSFETs n-ch 30v快开关mosfet
Super Low Gate Charge 超低栅电荷
100% EAS Guaranteed 100%EAS保证
Excellent CdV/dt effect decline cdv/dt效应下降良好
Advanced high cell density Trench technology 先进的高密度槽技术

应用/Application

消费电子产品 Consumer electronics

印字/MARKING 引脚定义/pin definition



极限参数/N-Channel Absolute maximum ratings(Ta=25℃)

Symbol	Parameter	Rating	Units
V_{DS}	Drain-Source Voltage	30	V
V_{GS}	Gate-Source Voltage	±20	V
I_D@T_A=25℃	Continuous Drain Current, V_{GS} @ 10V[1]	15.0	A
I_D@T_A=70℃	Continuous Drain Current, V_{GS} @ 10V[1]	8.2	A
I_{DM}	Pulsed Drain Current[2]	42	A
EAS	Single Pulse Avalanche Energy[3]	61	mJ
I_{AS}	Avalanche Current	35	A
P_D@T_A=25℃	Total Power Dissipation[4]	1.5	W
T_{STG}	Storage Temperature Range	-55 to 150	℃
T_J	Operating Junction Temperature Range	-55 to 150	℃

Thermal Data

Symbol	Parameter	Typ.	Max.	Unit
RθJA	Thermal Resistance Junction-ambient [1]	---	85	℃/W
RθJC	Thermal Resistance Junction-Case1	---	36	℃/W

电性能参数/ P-Channel Electrical characteristics (Ta=25℃)

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
BV_{DSS}	Drain-Source Breakdown Voltage	V_{GS}=0V , I_D=250uA	30	---	---	V
$\triangle BV_{DSS}/\triangle T_J$	BVDSS Temperature Coefficient	Reference to 25℃ , ID=1mA	---	0.027	---	V/℃
$R_{DS(ON)}$	Static Drain-Source On-Resistance2	VGS=10V , ID=10A	---	7.5	9	mΩ
		VGS=4.5V , ID=8A	---	11	14	
$V_{GS(th)}$	Gate Threshold Voltage	VGS=VDS , ID =250uA	1.2	1.5	2.5	V
$\triangle V_{GS(th)}$	VGS(th) Temperature Coefficient		---	-5.8	---	mV/℃
I_{DSS}	Drain-Source Leakage Current	VDS=24V , VGS=0V , TJ=25℃	---	---	1	uA
		VDS=24V , VGS=0V , TJ=55℃	---	---	5	
I_{GSS}	Gate-Source Leakage Current	VGS=±20V , VDS=0V	---	---	±100	nA
gfs	Forward Transconductance	VDS=5V , ID=10A	---	5.8	---	S
R_g	Gate Resistance	VDS=0V , VGS=0V , f=1MHz	---	2.2	3.8	
Q_g	Total Gate Charge (4.5V)	VDS=15V , VGS=4.5V , ID=10A	---	12.6	17.6	nC
Q_{gs}	Gate-Source Charge		---	4.2	5.9	
Q_{gd}	Gate-Drain Charge		---	5.1	7.1	
$T_{d(on)}$	Turn-On Delay Time	VDD=15V , VGS=10V , RG=3.3 ID=10A	---	6.2	12.4	ns
T_r	Rise Time		---	59	106	
$T_{d(off)}$	Turn-Off Delay Time		---	27.6	55	
T_f	Fall Time		---	8.4	16.8	
C_{iss}	Input Capacitance	VDS=15V , VGS=0V , f=1MHz	---	1317	1845	pF
C_{oss}	Output Capacitance		---	163	228.2	
C_{rss}	Reverse Transfer Capacitance		---	131	183.4	

Diode Characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
I_S	Continuous Source Current[1,5]	V_G=V_D=0V , Force Current	---	---	10.3	A
I_{SM}	Pulsed Source Current[2,5]		---	---	42	A
V_{SD}	Diode Forward Voltage[2]	V_{GS}=0V , I_S=1A , T_J=25℃	---	---	1.2	V
t_{rr}	Reverse Recovery Time	IF=10A , dI/dt=100A/μs , T_J=25℃	---	12.5	---	nS
Q_{rr}	Reverse Recovery Charge		---	5	---	nC

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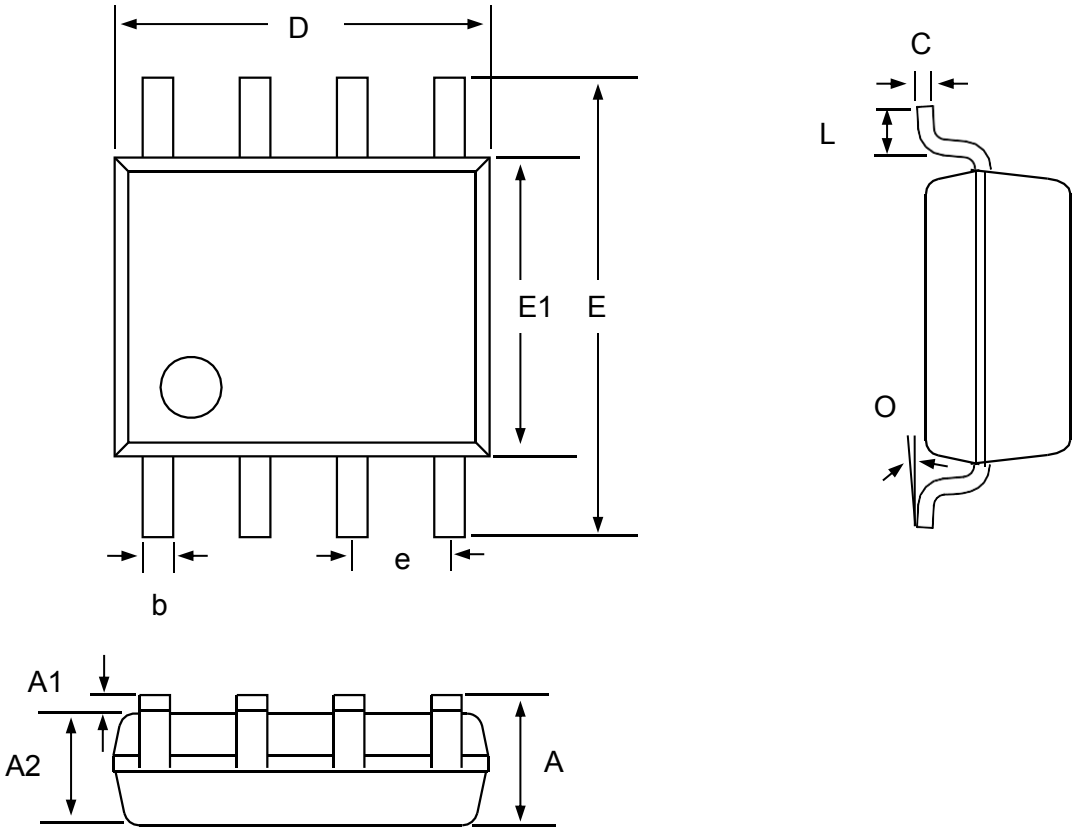
封装外观尺寸/SOP8 Package Information



Symbol	Dim in mm		
	Min	Nor	Max
A	1.350	1.550	1.750
A1	0.100	0.175	0.250
A2	1.350	1.450	1.550
b	0.330	0.420	0.510
c	0.170	0.210	0.250
D	4.800	4.900	5.000
e	1.270(BSC)		
E	3.800	3.900	4.000
E1	0.400	0.835	1.2700
L	0°	4°	8°