



SSC8814CS6A

Dual N-channel Power MOSFET

Features

V _{DS}	V _{GS}	R _{SSON Typ.}	ID	ESD
12V	±8V	10mR/4.5V	8	800V

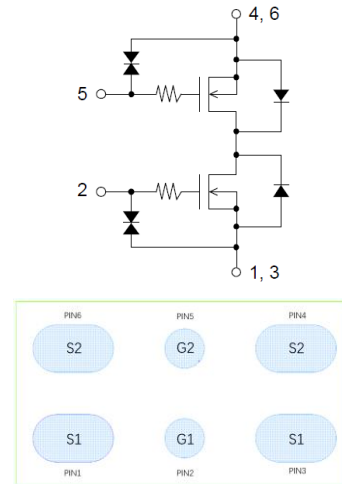
Description

The SSC8814CS6A is the Dual N-Channel enhancement MOSFET. Uses advanced trench and CSP package technology design to provide excellent R_{ON} with low gate charge.

Application

- Power Switch
- Load Switch
- One-cell Lion Battery

Pin Configuration



Bottom View

Ordering Information

Device	Package	Shipping
SSC8814CS6A	CSP	3K/Reel

Absolute Maximum Ratings(TA=25°C unless otherwise noted)

Symbol	Parameter	Ratings	Unit
V _{SS}	Source -to-Source Voltage	12	V
V _{GS}	Gate-to-Source Voltage	±8	
I _D	Continuous Source Current ^A	8	A
I _{DM}	Pulsed Source Current ^B	24	
P _D	Power Dissipation ^C	1	W
T _J	Operation junction temperature	150	°C
T _{STG}	Storage temperature range	-55~150	
R _{θJA}	Junction-to-Ambient Thermal Resistance ^C	125	°C/W



SSC8814CS6A

✚ Electronics Characteristics(TA=25°C unless otherwise noted)

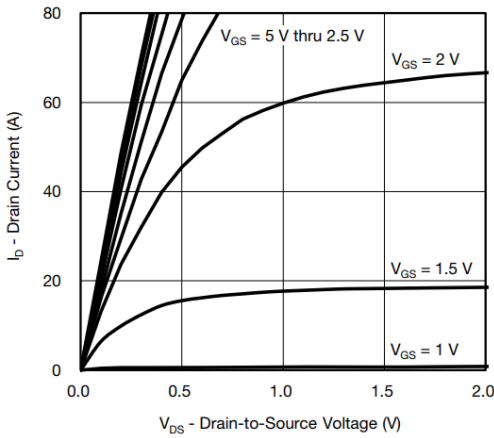
Symbol	Parameter	Test Conditions	Min	Typ.	Max	Unit
$V_{(BR)SSS}$	Source to Source Breakdown Voltage	VGS=0V , IS=1mA	12			V
$V_{GS(TH)}$	Gate Threshold Voltage	VSS=6V , IS=1mA	0.4	0.7	1.2	V
R_{SS}	Source to Source on Resistance	VGS=4.5V , IS=4A		10	14	mR
		VGS=2.5V , IS=2A		15	22	
I_{SSS}	Zero Gate Voltage Current	VSS=10V , VGS=0V			1	uA
I_{GSS}	Gate Source Leak Current	VGS=±8V , VSS=0V			±10	uA
V_{SS}	Forward Voltage	ISS=2A		0.7	1.3	V
C_{ISS}	Input Capacitance ^D	VGS=0V		2700		pF
C_{OSS}	Output Capacitance ^D	VSS=10V		450		
C_{RSS}	Transfer Capacitance ^D	f=1MHz		290		
$T_{D(ON)}$	Turn-on delay time	VSS=6V IS=2A VGS=4V		4		us
T_R	Rise time			5		
$T_{D(OFF)}$	Turn-off delay time			13		
T_F	Fall time			8		
Q_G	Total Gate Charge ^D	VSS=6V, IS=2A, VGS=4V		26		nC

Note:

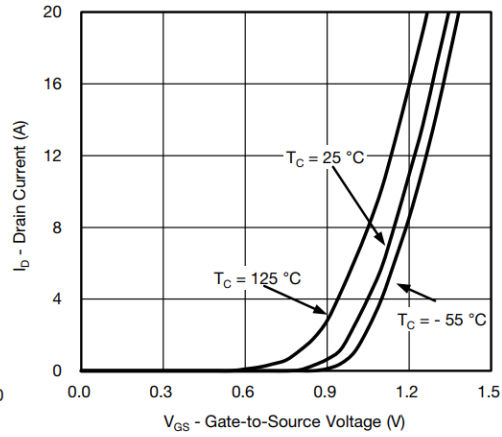
- The current rating is based on the $t \leq 10s$ thermal resistance rating.
- $t = 10\mu s$, Duty Cycle $\leq 1\%$.
- Surface mounted on ceramic substrate.
- Guaranteed by design, not subject to production testing.



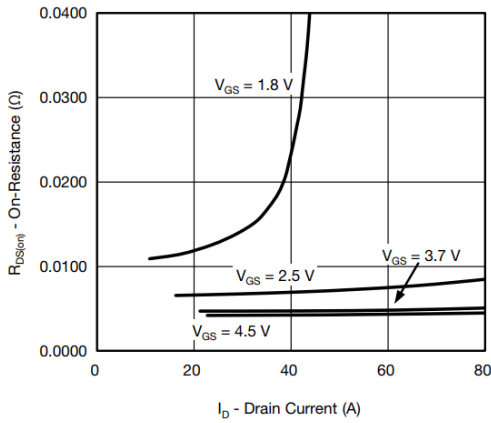
Single Typical Characteristics (TA=25°C unless otherwise noted)



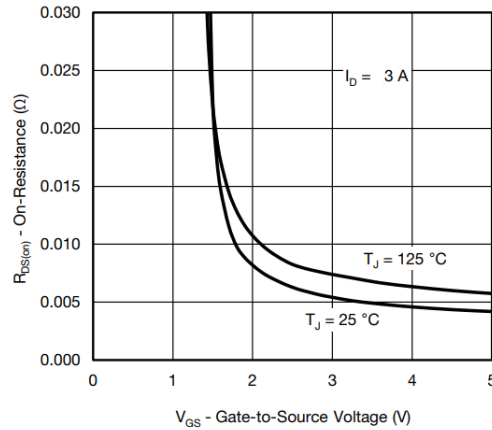
Output Characteristics



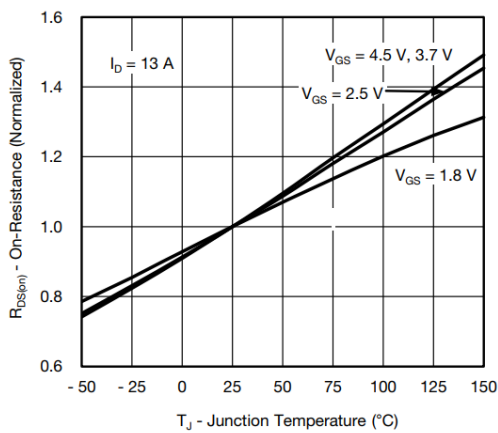
Transfer Characteristics



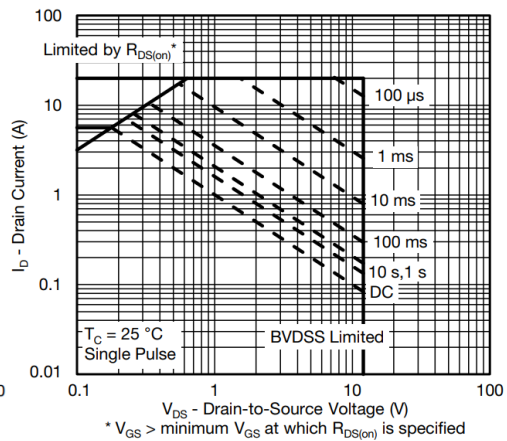
On-Resistance vs. Drain Current and Gate Voltage



On-Resistance vs. Gate-to-Source Voltage



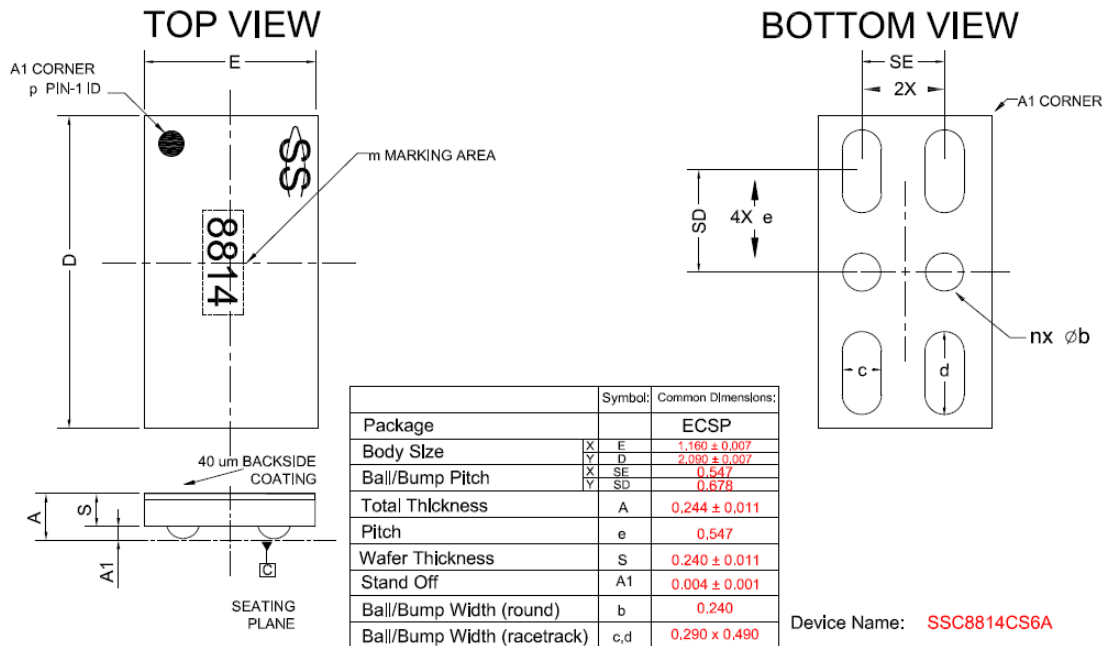
On-Resistance vs. Junction Temperature



Safe Operating Area, Junction-to-Ambient



Package Information



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