SSC8037GN2

P-Channel Enhancement Mode MOSFET

➢ Features

VDS	VGS	RDSON Typ.	ID
-30V	±20V	14mR@-10V	-11A
		22mR@-4V5	

➢ Description

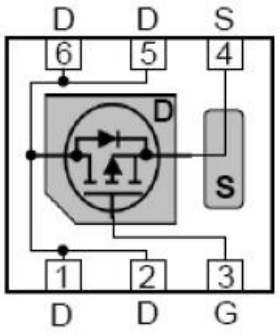
This device is produced with high cell density DMOS trench technology, uses advanced trench technology and design to provide excellent RDSON with low gate charge. This device particularly suits low voltage applications such as portable equipment, power management and other battery powered circuits, and low in-line power dissipation are needed in a very small outline surface mount package.

➢ Applications

- Load Switch
- Portable Devices
- DCDC conversion
- Charging
- Driver for Relay

➢ Pin configuration

Top view



Bottom View

Marking

➢ Ordering Information

Device	Package	Shipping
SSC8037GN2	DFN2x2	3000/Reel

➢ Absolute Maximum Ratings(T_A=25℃ unless otherwise noted)

Symbol	Parameter	Ratings	Unit
V_{DSS}	Drain-to-Source Voltage	-30	V
V_{GSS}	Gate-to-Source Voltage	±20	V
I_D	Continuous Drain Current [a]	-11	A
I_{DM}	Pulsed Drain Current [b]	-44	A
P_D	Power Dissipation [a]	-2.6	W
T_J	Operation junction temperature	-55 to 150	℃
T_{STG}	Storage temperature range	-55 to 150	℃

➢ Thermal Resistance Ratings(T_A=25℃ unless otherwise noted)

Symbol	Parameter	Ratings	Unit
$R_{\theta JA}$	Junction-to-Ambient Thermal Resistance [a]	48	℃/W

Note:

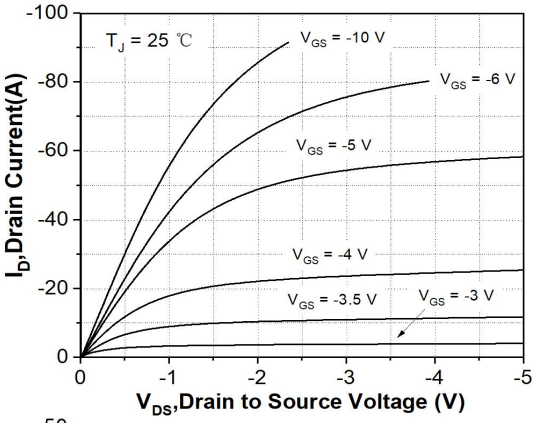
a. The value of $R_{\theta JA}$ is measured with the device mounted on 1 in^2 FR-4 board with 2oz.copper,in a still air environment with T_A=25℃.The value in any given application depends on the user is specific board design. The current rating is based on the t≤ 10s thermal resistance rating.

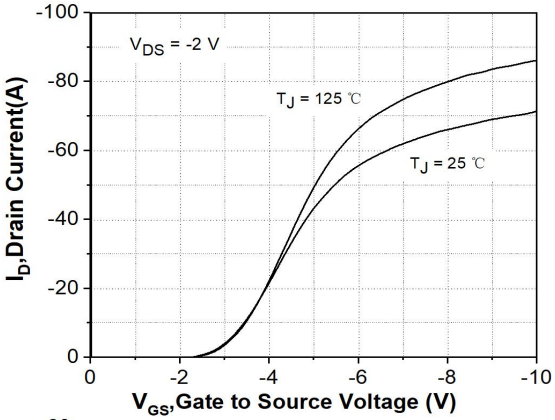
b. Repetitive rating, pulse width limited by junction temperature.

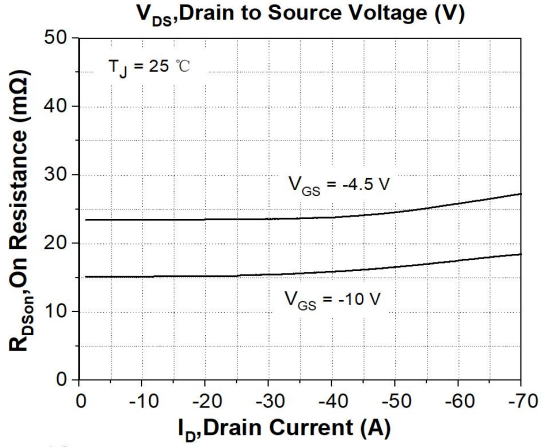
➢ **Electronics Characteristics**(T_A=25℃ unless otherwise noted)

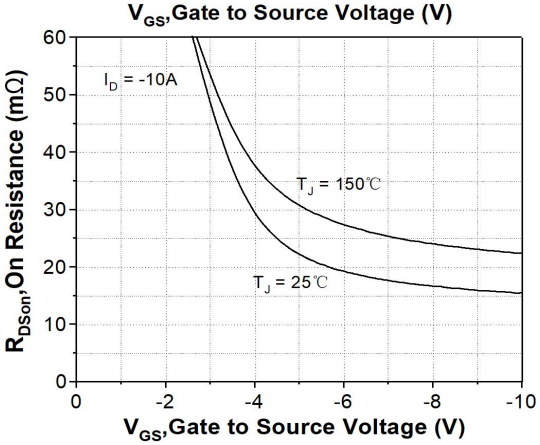
Symbol	Parameter	Test Conditions	Min	Typ.	Max	Unit
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	VGS=0V , ID=-250uA	-30			V
$V_{GS\ (th)}$	Gate Threshold Voltage	VDS=VGS , ID=-250uA	-1	-1.8	-3	V
$R_{DS(on)}$	Drain-Source On-Resistance	VGS=-10V , ID=-7A		14	19	mR
		VGS=-4.5V , ID=-5A		22	30	
I_{DSS}	Zero Gate Voltage Drain Current	VDS=-30V , VGS=0V			-1	uA
I_{GSS}	Gate-Source leak current	VGS=±20V , VDS=0V			±100	nA
V_{SD}	Forward Voltage	VGS=0V , IS=-1A		-0.85	-1.3	V
Ciss	Input Capacitance	VDS=-15V , VGS=0V, f=1MHz		1300		pF
Coss	Output Capacitance			161		
Crss	Reverse Transfer Capacitance			183		
Q_G	Total Gate charge	VGS=-10V , VDS=-15V, ID=-10A		25.5		nC
Q_{GS}	Gate to Source charge			4.3		
Q_{GD}	Gate to Drain charge			6.1		
$T_{D(ON)}$	Turn-on delay time	VGS=-10V, VDS=-15V, RL=1R, RG=3R		8		ns
Tr	Rise time			33.5		
$T_{D(OFF)}$	Turn-off delay time			48		
Tf	Fall time			11		
Trr	Diode Recovery Time	IF=-10A, di/dt=200A/us		23		ns
Qrr	Diode Recovery Charge			8		nC

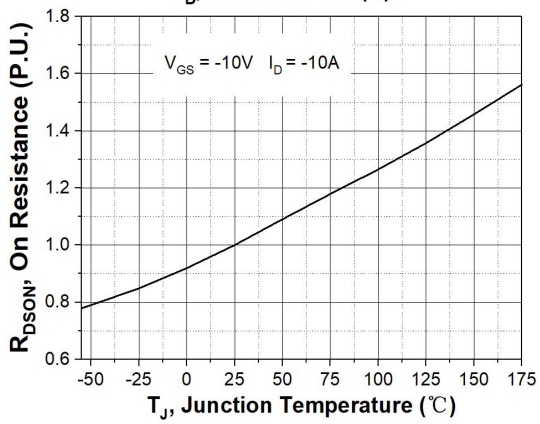
➢ Typical Characteristics(T_A=25℃ unless otherwise noted)

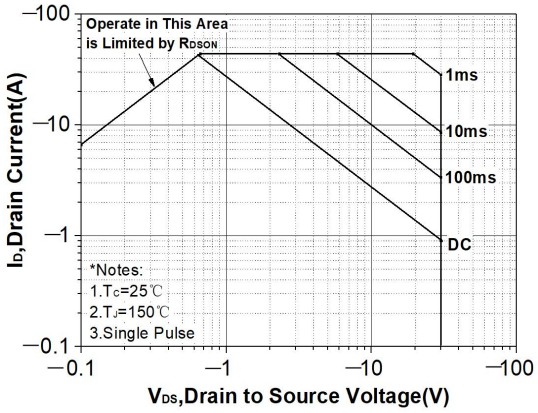


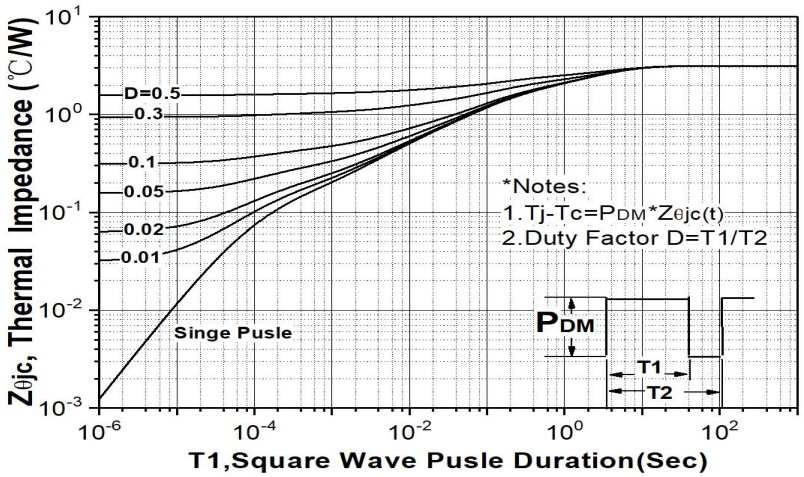




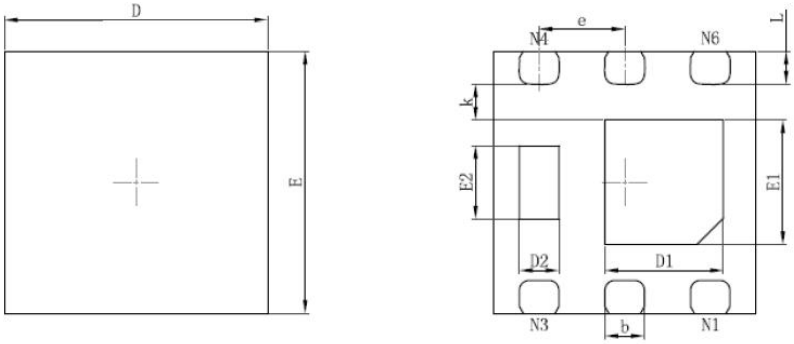






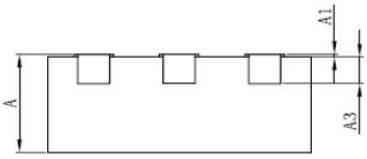


➢ Package Information



TOP VIEW

BOTTOM VIEW



SIDE VIEW

DFN2x2-6L

Symbol	Dimensions In Millimeters	
	Min.	Max.
A	0.700	0.800
A1	0.000	0.050
A3	0.203REF.	
D	1.924	2.076
E	1.924	2.076
D1	0.800	1.000
E1	0.850	1.050
D2	0.200	0.400
E2	0.460	0.660
k	0.200MIN.	
b	0.250	0.350
e	0.650TYP.	
L	0.174	0.326

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