



# SSC8030GN2

## N-Channel Enhancement Mode MOSFET

- **Features**

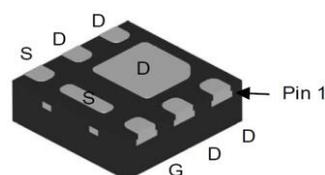
VDS	VGS	RDSon TYP	ID
30V	±20V	8.5mR@10V	10A
		10.5mR@4V5	

- **Applications**

- Load Switch
- PC/NB
- DCDC conversion

- **Pin configuration**

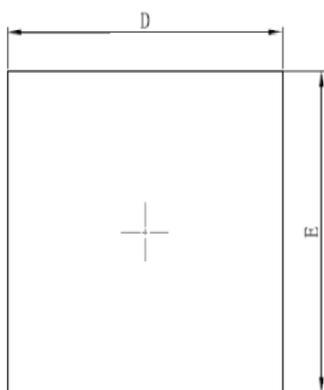
Top View



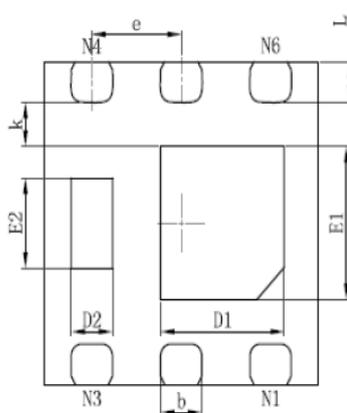
- **General Description**

This device uses advanced trench technology to provide excellent RDS(ON) and low gate charge. This device is suitable for use as a load switch or in PWM applications.

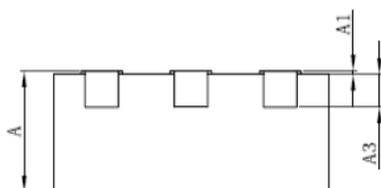
- **Package Information**



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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● **Absolute Maximum Ratings** @  $T_A = 25^\circ\text{C}$  unless otherwise specified

Parameter	Symbol	N-channel	Unit
Drain-Source Voltage	$V_{DSS}$	30	V
Gate-Source Voltage	$V_{GSS}$	$\pm 20$	V
Continuous Drain Current (Note 1)	$I_D$	10	A
Pulsed Drain Current (Note 2)	$I_{DM}$	41	A
Total Power Dissipation (Note 1)	$P_D$	2	W
Storage Junction Temperature Range	$T_J, T_{STG}$	-55 to +150	$^\circ\text{C}$

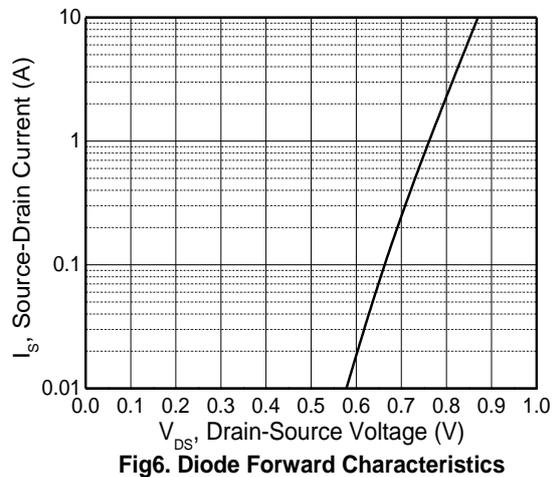
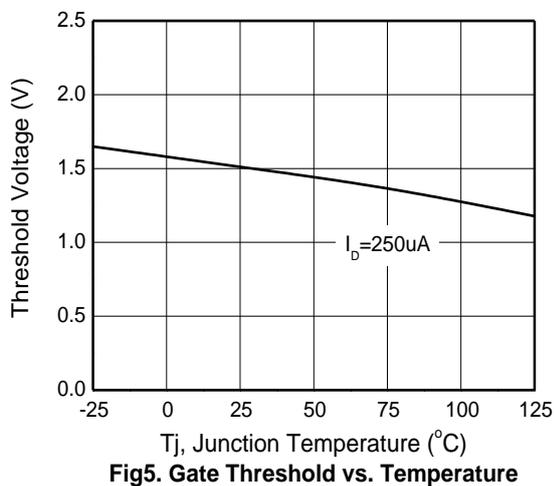
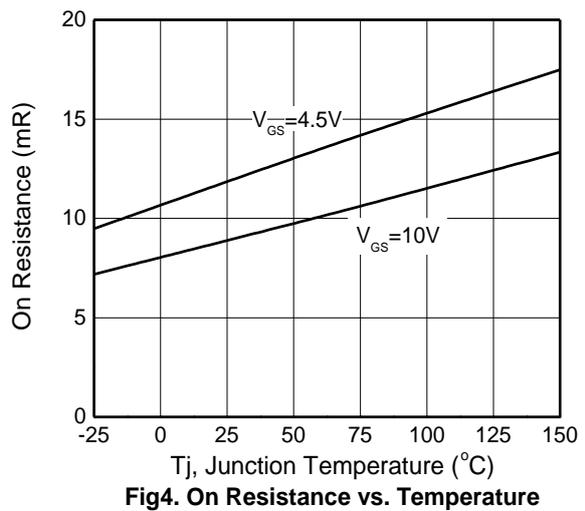
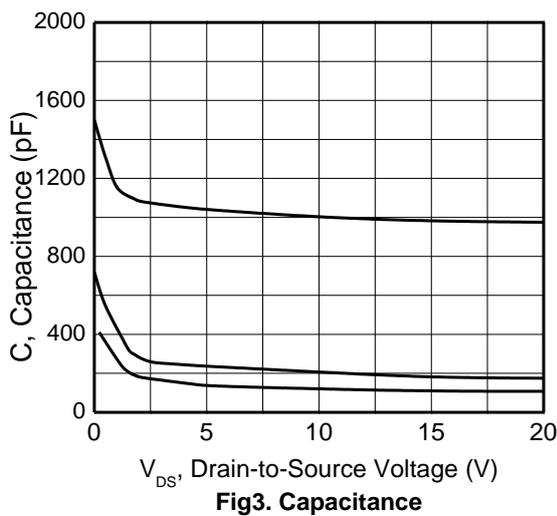
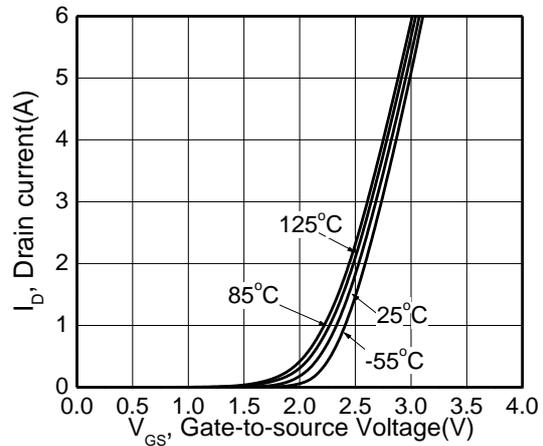
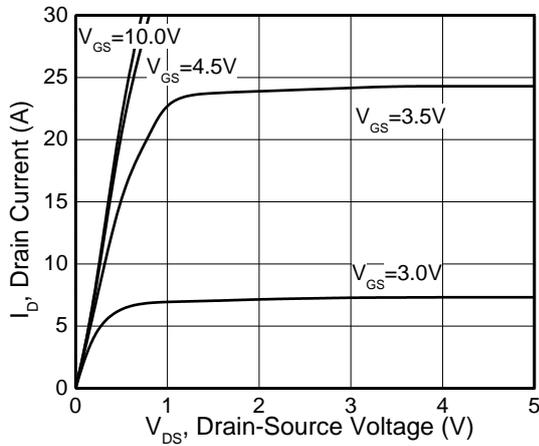
● **Electrical Characteristics** @  $T_A = 25^\circ\text{C}$  unless otherwise specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS} = 0\text{ V}, I_D = 250\ \mu\text{A}$	30	--	--	V
Gate Threshold Voltage	$V_{GS(TH)}$	$V_{DS} = V_{GS}, I_D = 250\ \mu\text{A}$	1	1.5	3	V
Gate-Body Leakage Current	$I_{GSS}$	$V_{GS} = \pm 20\text{ V}, V_{DS} = 0\text{ V}$	--	--	$\pm 100$	nA
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS} = 24\text{ V}, V_{GS} = 0\text{ V}$	--	--	1	$\mu\text{A}$
Drain-Source On-State Resistance	$R_{DS(ON)}$	$V_{GS} = 10\text{ V}, I_D = 15\text{ A}$	--	8.5	10.5	mR
		$V_{GS} = 4.5\text{ V}, I_D = 12\text{ A}$	--	10.5	14	
Forward Transconductance	$G_{FS}$	$V_{DS} = 15\text{ V}, I_D = 12\text{ A}$	8	16	--	S
Diode Forward Voltage	$V_{SD}$	$V_{GS} = 0\text{ V}, I_S = 1\text{ A}$	--	0.8	1.5	V
Input Capacitance	$C_{ISS}$	$V_{DS} = 15\text{ V}, V_{GS} = 0\text{ V},$ $f = 1.0\text{ MHz}$	--	1130	--	pF
Output Capacitance	$C_{OSS}$		--	200	--	
Reverse Transfer Capacitance	$C_{RSS}$		--	105	--	
Turn-On Delay Time	$T_{D(ON)}$	$V_{DS} = 15\text{ V}, R_L = 2.3\text{R},$	--	--	18	ns
Turn-Off Delay Time	$T_{D(OFF)}$	$V_{GS} = 10\text{ V}, R_{GEN} = 3\text{R}$	--	--	70	

Note :

- DUT is mounted on a  $1\text{ in}^2$  FR-4 board with 2oz. Copper in a still air environment at  $25^\circ\text{C}$ , the current rating is based on the DC (<10s) test conditions.
- Repetitive rating, pulse width limited by junction temperature.

### 3. Typical Performance Characteristics





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