

SSC8234GN6
N-Channel Enhancement Mode MOSFET

 ➤ **Features**

VDS	VGS	RDSON Typ.	ID
30V	±20V	2.8mR@10V	100A
		3.8mR@4V5	

 ➤ **Description**

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

 ➤ **Applications**

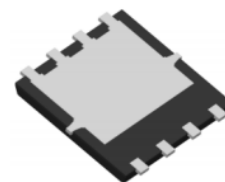
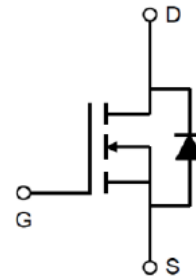
- Load Switch
- Portable Devices
- DCDC conversion

 ➤ **Ordering Information**

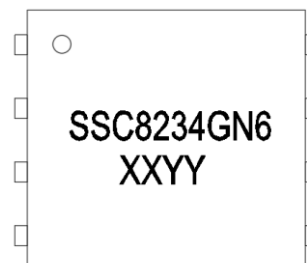
Device	Package	Shipping
SSC8234GN6	DFN5x6	5000/Reel

 ➤ **Pin configuration**

Top view



Bottom View



(XX: year/YY: week)

Marking

➤ **Absolute Maximum Ratings**($T_A=25^{\circ}\text{C}$ 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	100	A
I_{DM}	Pulsed Drain Current	120	A
P_D	Power Dissipation	73	W
T_J	Operation junction temperature	-55 to 150	$^{\circ}\text{C}$
T_{STG}	Storage temperature range	-55 to 150	$^{\circ}\text{C}$

➤ **Thermal Resistance Ratings**($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Typical	Maximum	Unit
$R_{\theta JA}$	Junction-to-Ambient Thermal Resistance		27	$^{\circ}\text{C}/\text{W}$
$R_{\theta JC}$	Junction-to-Case Thermal Resistance		10	

➤ **Electronics Characteristics**($T_A=25^{\circ}\text{C}$ unless otherwise noted)

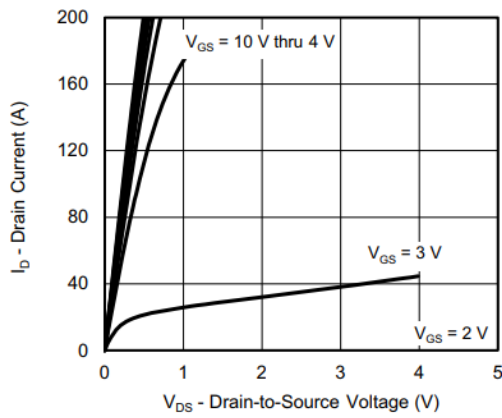
Symbol	Parameter	Test Conditions	Min	Typ.	Max	Unit
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0V, I_D=250\mu\text{A}$	30			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}, I_D=250\mu\text{A}$	1.2	1.5	2.8	V
$R_{DS(on)}$	Drain-Source On- Resistance	$V_{GS}=10V, I_D=24A$		2.8	3.2	mR
		$V_{GS}=4.5V, I_D=20A$		3.8	4.2	

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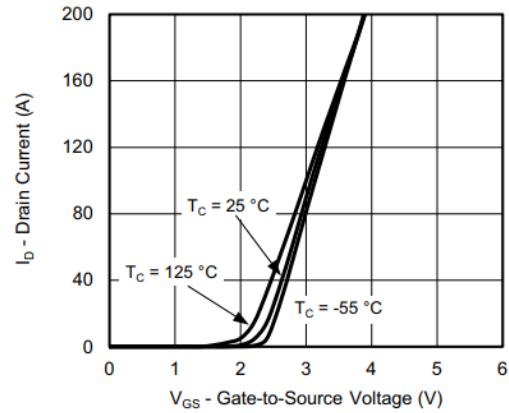
Symbol	Parameter	Test Conditions	Min	Typ.	Max	Unit
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=30V, V_{GS}=0V$			1	μA
I_{GSS}	Gate-Source leak current	$V_{GS}=\pm 20V, V_{DS}=0V$			± 100	nA
G_{FS}	Forward Transconductance	$V_{DS}=5V, I_D=5A$		25		S
V_{SD}	Forward Voltage	$V_{GS}=0V, I_S=1A$			1	V

Symbol	Parameter	Test Conditions	Min	Typ.	Max	Unit
C_{iss}	Input Capacitance	$V_{DS}=15V, V_{GS}=0V,$ $F=1MHz$		2112		pF
C_{oss}	Output Capacitance			309		
C_{rss}	Reverse Transfer Capacitance			244		
$T_{D(ON)}$	Turn-on delay time	$V_{GEN}=10V,$ $V_{DS}=15V, R_L=15R,$ $R_G=3R, I_D=1A$			8	ns
$T_{D(OFF)}$	Turn-off delay time				40	

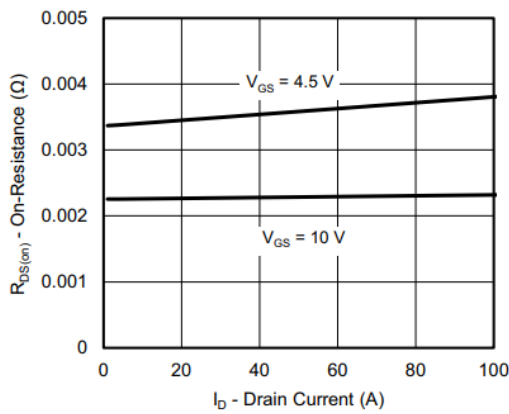
➤ **Typical Characteristics** ($T_A=25^\circ\text{C}$ unless otherwise noted)



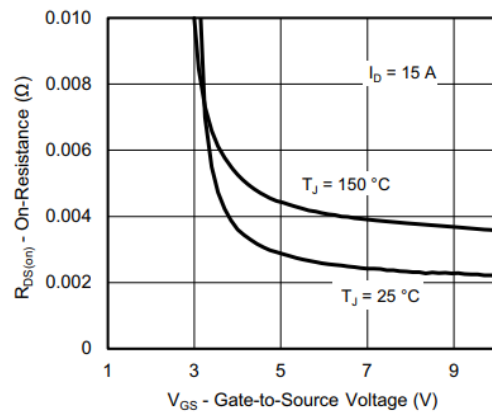
Output Characteristics



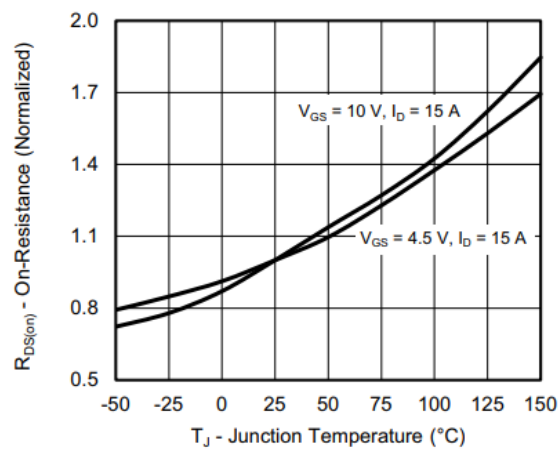
Transfer Characteristics



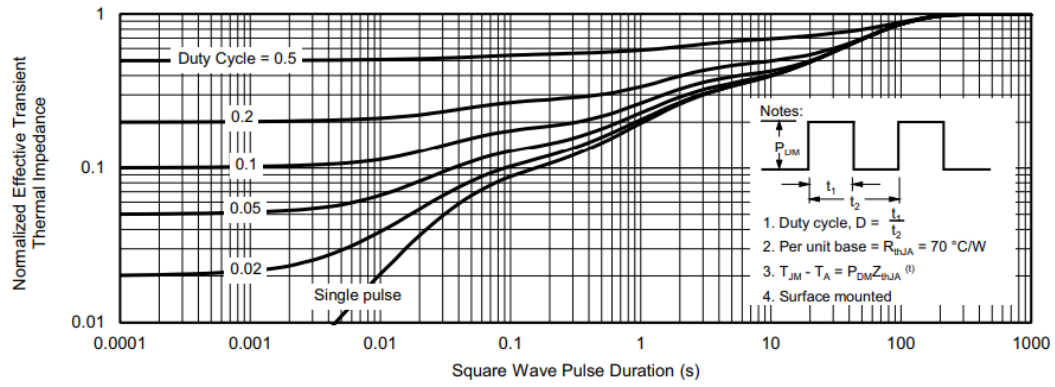
On-Resistance vs. Drain Current



On-Resistance vs. Gate-to-Source Voltage

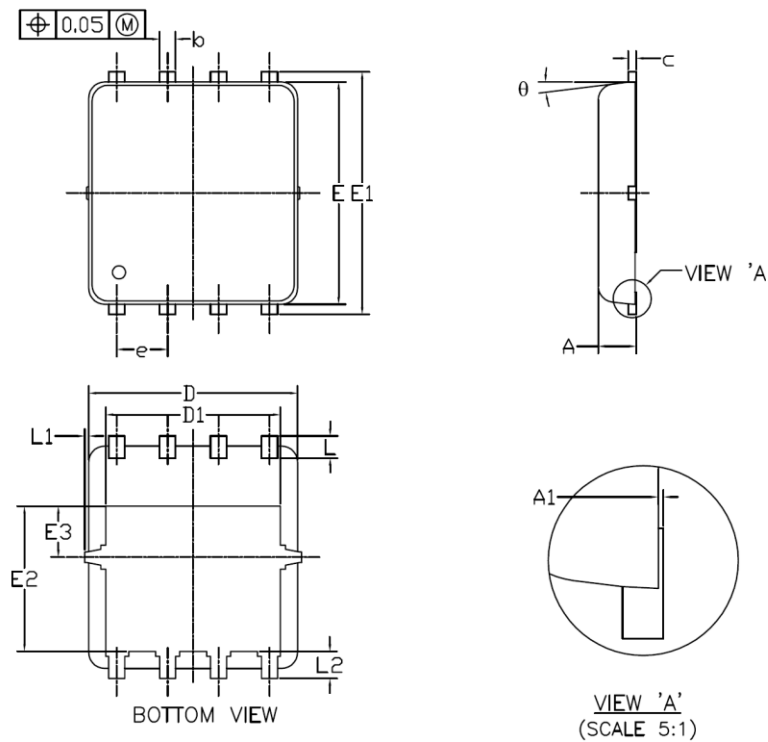


On-Resistance vs. Junction Temperature



Normalized Thermal Transient Impedance, Junction-to-Ambient

➤ Package Information



Package : DNF5X6-8L

SYMBOLS	DIMENSIONS IN MILLIMETERS		
	MIN	NOM	MAX
A	0.85	0.95	1.00
A1	0.00	---	0.05
b	0.30	0.40	0.50
c	0.15	0.20	0.25
D	5.10	5.20	5.30
D1	4.25	4.35	4.45
E	5.45	5.55	5.65
E1	5.95	6.05	6.15
E2	3.525	3.625	3.725
E3	1.175	1.275	1.375
e	1.27 BSC		
L	0.45	0.55	0.65
L1	0	---	0.15
L2	0.68 REF		
θ	0°	---	10°



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