



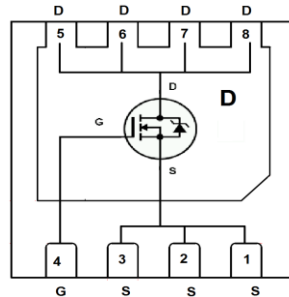
SSC8228GQ4

N-Channel Enhancement Mode MOSFET

➤ Features

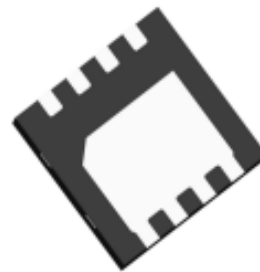
VDS	VGS	RDSON Typ.	ID
20V	±12V	5.5mR@4V5	40A
		7mR@2V5	

➤ Pin configuration



➤ Description

The SSC8228GQ4 combines advanced trench MOSFET technology with a low resistance package to provide extremely low RDSON. This device is ideal for load switch and battery protection applications.



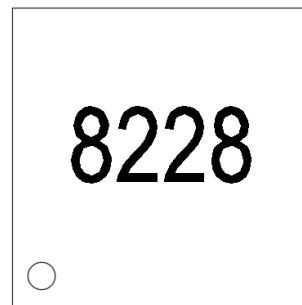
Bottom View

➤ Applications

- Load Switch
- Portable Devices
- DCDC Conversion

➤ Ordering Information

Device	Package	Shipping
SSC8228GQ4	DFN3x3	5000/Reel



Marking



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

Symbol	Parameter	Ratings	Unit
V_{DSS}	Drain-to-Source Voltage	20	V
V_{GSS}	Gate-to-Source Voltage	± 12	V
I_D	Continuous Drain Current	40	A
I_{DM}	Pulsed Drain Current	160	A
P_D	Power Dissipation	3	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		59	$^{\circ}\text{C}/\text{W}$
$R_{\theta JC}$	Junction-to-Case Thermal Resistance		39	

➤ **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	$V_{GS}=0\text{V}, I_D=250\mu\text{A}$	20			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}, I_D=250\mu\text{A}$	0.5	0.7	1	V
$R_{DS(on)}$	Drain-Source On- Resistance	$V_{GS}=4.5\text{V}, I_D=10\text{A}$		5.5	7	mR
		$V_{GS}=2.5\text{V}, I_D=9\text{A}$		7	9	



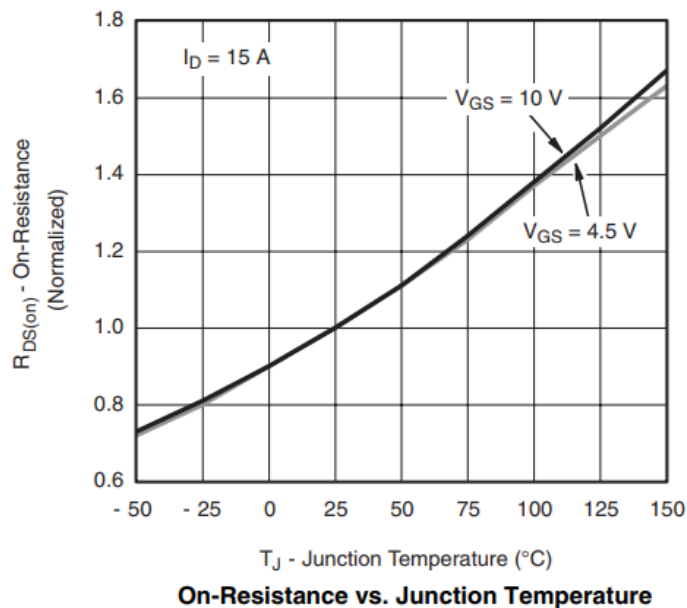
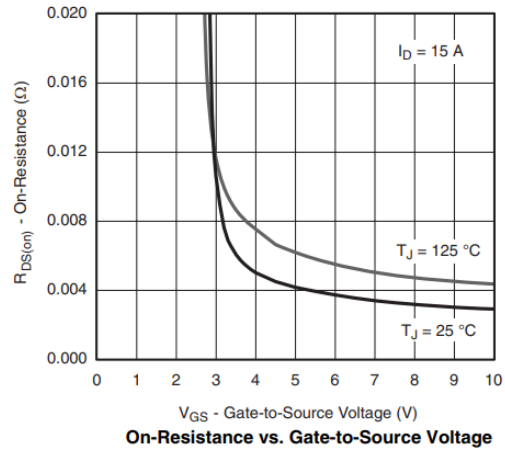
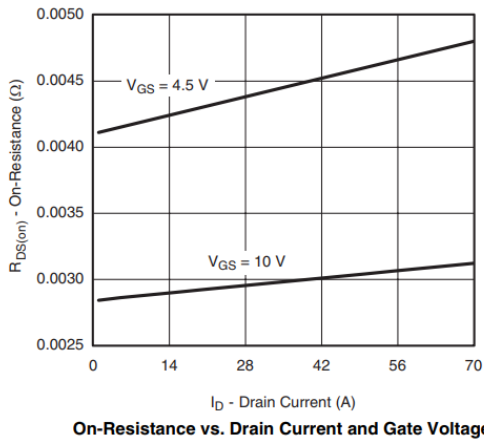
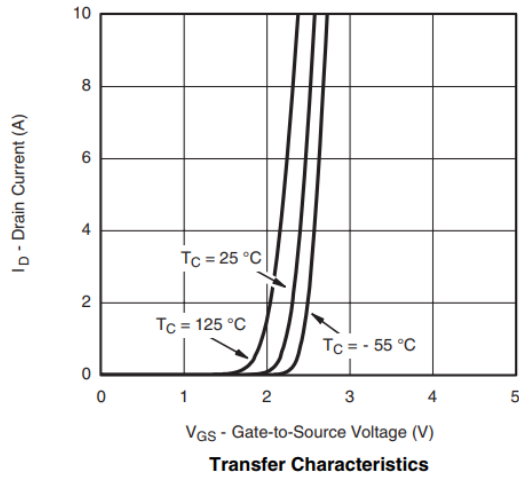
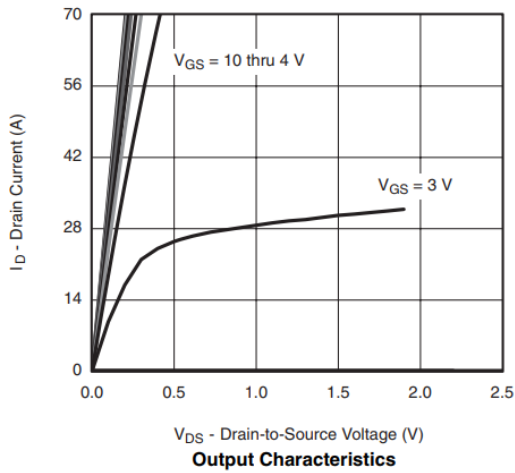
SSC8228GQ4

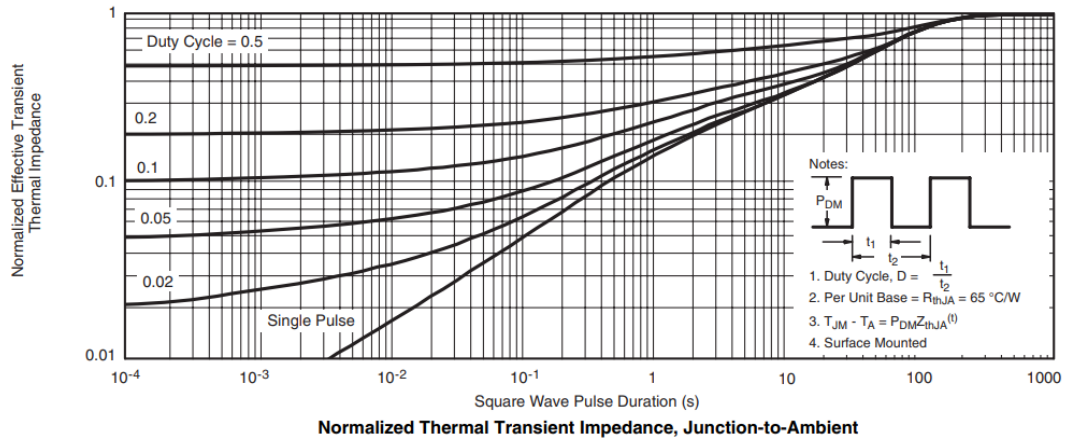
Symbol	Parameter	Test Conditions	Min	Typ.	Max	Unit
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=16V, V_{GS}=0V$			1	μA
I_{GSS}	Gate-Source leak current	$V_{GS}=\pm 12V, V_{DS}=0V$			± 100	nA
G_{FS}	Forward Transconductance	$V_{DS}=5V, I_D=3.6A$		105		S
V_{SD}	Forward Voltage	$V_{GS}=0V, I_S=1.1A$		0.7	1.3	V

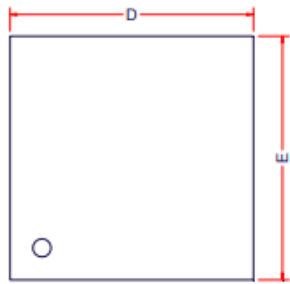
Symbol	Parameter	Test Conditions	Min	Typ.	Max	Unit
C_{iss}	Input Capacitance	$V_{DS}=10V, V_{GS}=0V,$ $F=1MHz$		1900		pF
C_{oss}	Output Capacitance			430		
C_{rss}	Reverse Transfer Capacitance			140		
$T_{D(ON)}$	Turn-on delay time	$V_{GS}=4.5V,$ $V_{DS}=5V, R_G=6R, I_D=3.6A$			7	ns
$T_{D(OFF)}$	Turn-off delay time				70	



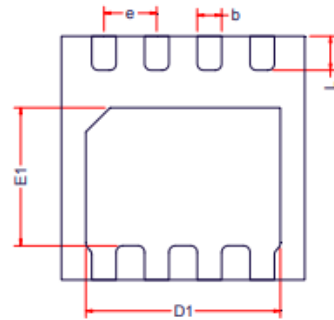
➤ **Typical Characteristics**($T_A=25^\circ\text{C}$ unless otherwise noted)



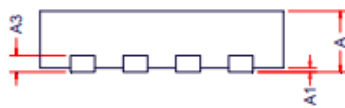


➤ Package Information


TOP VIEW



BOTTOM VIEW



SIDE VIEW

DFN3X3-8L

Symbol	Dimensions in Millimeters		
	Min.	Typ.	Max.
A	0.70	0.75	0.80
A1	0.00	0.02	0.05
A2	0.20Ref		
D	2.90	3.00	3.10
E	2.90	3.00	3.10
D1	2.35	2.40	2.45
E1	1.65	1.70	1.75
b	0.25	0.30	0.35
e	0.65BSC		
L	0.37	0.42	0.47



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