SSC8329GSB

Dual P-Channel Enhancement Mode MOSFET

➢ Features

V_{DS}	V_{GS}	$R_{DS(ON)}$ Typ.	I_D
-20V	±12V	36mΩ@-4V5	-4.5A
		56mΩ@-2V5	
		89mΩ@-1V8	

➢ Description

This device is from Advanced Power innovated design and silicon process technology to achieve the lowest possible on-resistance and fast switching performance. It provides the designer with an extreme efficient device for use in a wide range of power applications.

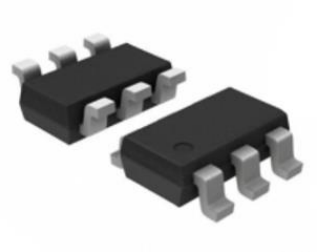
➢ Applications

- Load Switch
- Video monitor
- Power management
- DCDC conversion

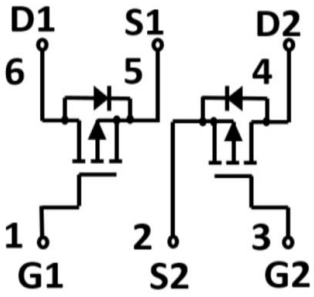
➢ Ordering Information

Device	Package	Shipping
SSC8329GSB	SOT-23-6L	3000/Reel

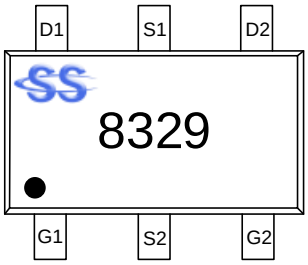
➢ Pin configuration



SOT-23-6L



Pin Configuration



Marking (Top View)

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

Parameter		Symbol	Ratings	Unit
Drain-to-Source Voltage		V_{DSS}	-20	V
Gate-to-Source Voltage		V_{GSS}	±12	V
Continuous Drain Current [a]	T_C=25℃	I_D	-4.5	A
	T_C=100℃		-2.5	
Pulsed Drain Current [b]		I_{DM}	-17.9	A
Power Dissipation [c]	T_C=25℃	P_D	1.1	W
	T_C=100℃		0.43	
Operation junction temperature		T_J	-55~150	℃
Storage temperature range		T_{STG}	-55~150	

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

Parameter	Symbol	Typical	Maximum	Unit
Junction-to-Ambient Thermal Resistance [a]	$R_{\theta JA}$		115	℃/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.

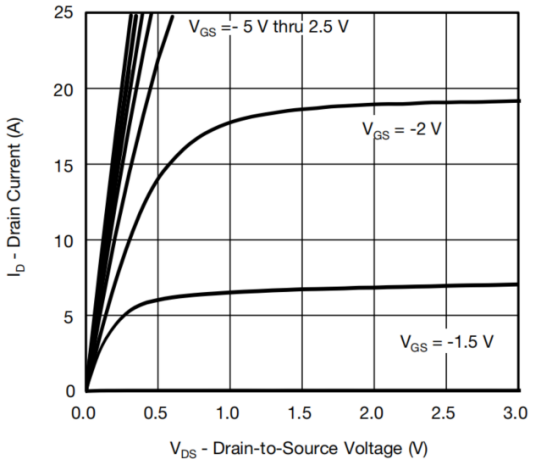
b. Repetitive rating, pulse width limited by junction temperature.

c. The power dissipation P_D is based on $T_{J(MAX)}$=150°C, using junction-to-case thermal resistance, and is more useful in setting the upper dissipation limit for cases where additional heat sinking is used.

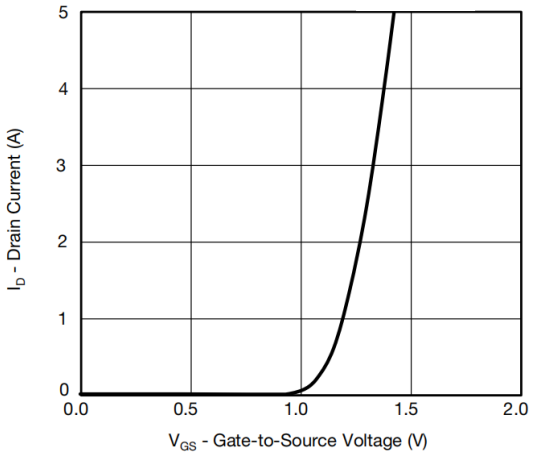
➢ Electrical Characteristics (T_A=25℃ unless otherwise noted)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	V_{GS} = 0V, I_D = -250μA	-20			V
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS} = V_{GS}, I_D = -250uA	-0.4	-0.7	-1	V
Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS} = -4.5V, I_D = -3A		36	48	mΩ
		V_{GS} = -2.5V, I_D = -2A		56	68	
		V_{GS} = -1.8V, I_D = -1A		89	125	
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS} = -16V, V_{GS} = 0V			-1	μA
Gate-Source Leak Current	I_{GSS}	V_{GS} = ±12V, V_{DS} = 0V			±100	nA
Forward Voltage	V_{SD}	V_{GS} = 0V, I_S = -2A			-1.3	V
Input Capacitance	C_{ISS}	V_{GS} = 0V, V_{DS} = -10V, f = 1MHz		580		pF
Output Capacitance	C_{OSS}			71		
Reverse Transfer Capacitance	C_{RSS}			56		
Total Gate Charge	Q_G	V_{GS} = -4.5V, V_{DS} = -10V, I_D = -2A		6		nC
Gate to Source Charge	Q_{GS}			1		
Gate to Drain Charge	Q_{GD}			1.2		
Turn-on Delay Time	$T_{D(ON)}$	V_{GS} = -4.5V, V_{DS} = -10V, I_D = -2A, R_G = 3Ω		5.8		ns
Rise Time	T_r			23		
Turn-off Delay Time	$T_{D(OFF)}$			102		
Fall Time	T_f			245		
Diode Recovery Time	T_{rr}	I_F = -2A, di/dt = 50A/us		38		ns
Diode Recovery Charge	Q_{rr}			4.7		nC

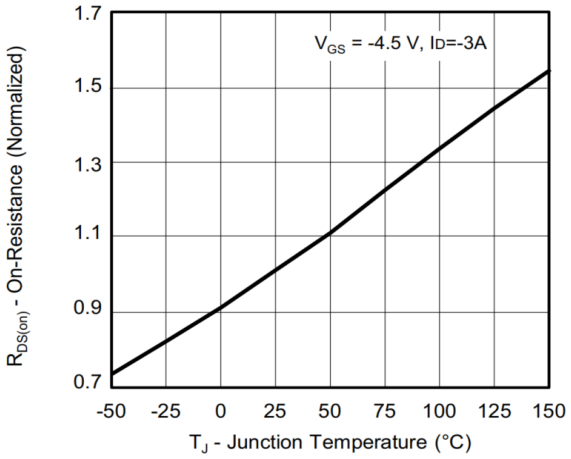
➢ Typical Performance Characteristics (T_A=25℃ unless otherwise noted)



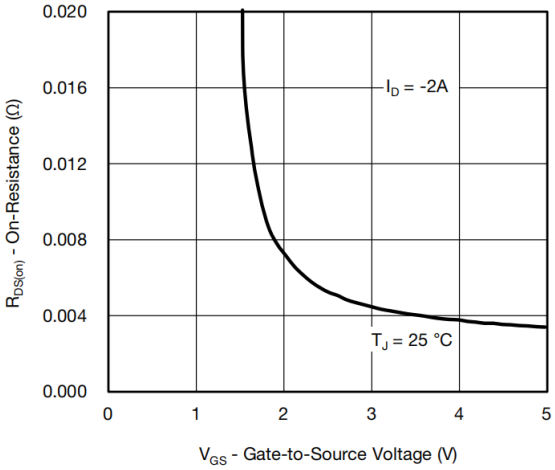
Output Characteristics



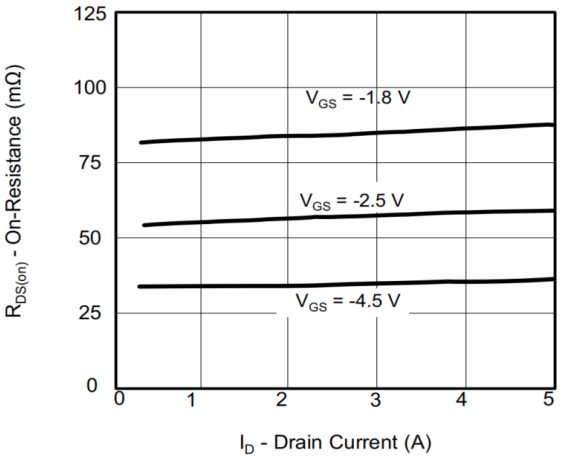
Transfer Characteristics



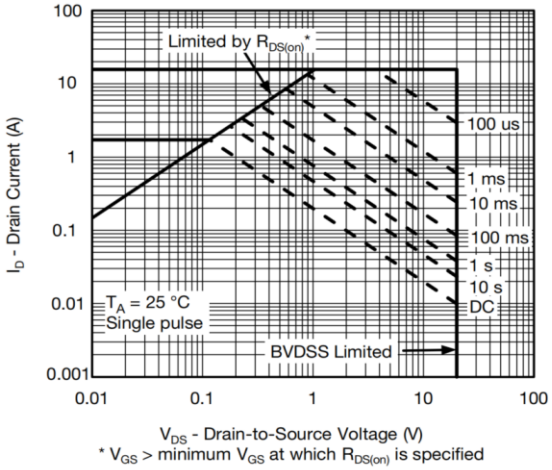
On-Resistance vs. Junction Temperature



On-Resistance vs. Gate-to-Source Voltage



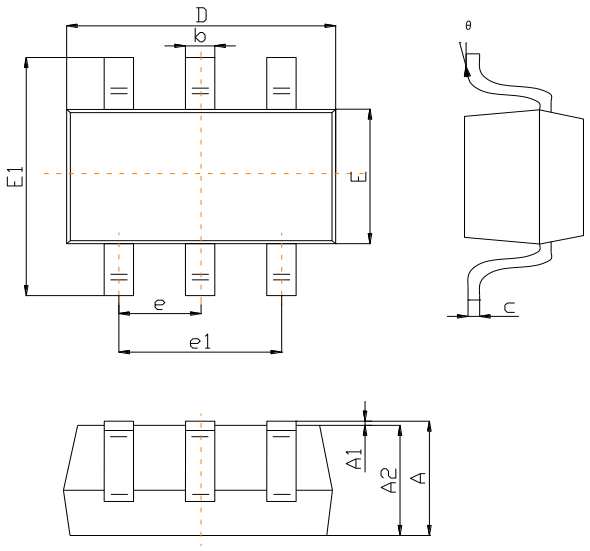
On-Resistance vs. Drain Current and Gate Voltage



Safe Operating Area, Junction-to-Ambient

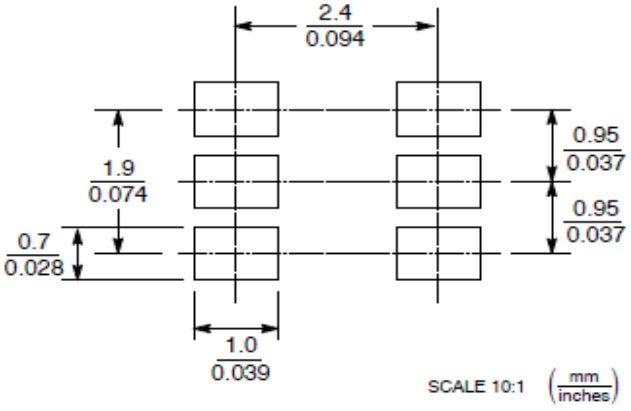
➢ Package Information

● Mechanical Data



DIM	Millimeters		
	MIN	NOM	MAX
A	1.100	1.150	1.250
A1	0.020	0.060	0.100
A2	1.050	1.100	1.150
b	0.320	0.350	0.480
c		0.152REF	
D	2.870	2.920	2.970
E	1.550	1.600	1.650
E1	2.600	2.800	3.000
e		0.950(BSC)	
e1	1.800	1.900	2.000
L	0.350	0.450	0.550
θ	0	3°	7°

● Recommended Pad outline



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