SSC8334GSB

Dual N-Channel Enhancement MOSFET

➢ Features

VDS	VGS	RDSON Typ.	ID	ESD
30V	±12V	450mR@4V5	1A	1.2KV
		520mR@2V5		

➢ Description

SSC8334GSB uses advanced trench technology to provide excellent RDSON and low gate charge. The complementary MOSFETS may be used to form a level shifted high side switch, and for a host of other applications.

➢ Applications

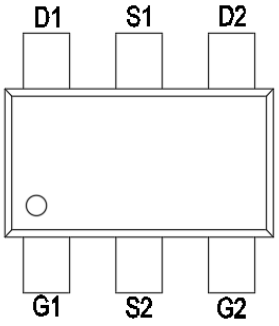
- Small signal switch
- Load switch
- Digital Transistors

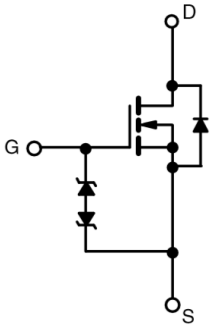
➢ Ordering Information

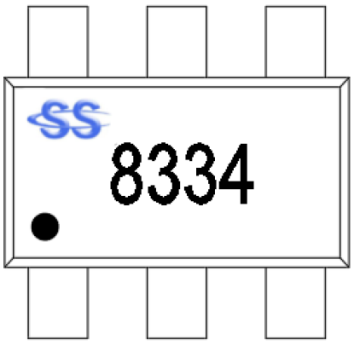
Device	Package	Shipping
SSC8334GSB	SOT23-6L	3000/Reel

➢ Pin configuration

Top view







Marking

➢ 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	±12	V
I_D	Continuous Drain Current [a]	1	A
I_{DM}	Pulsed Drain Current [b]	3	A
P_{DSM}	Power Dissipation [a]	0.8	W
P_D	Power Dissipation [c]	0.3	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	Typical	Unit
$R_{\theta JA}$	Junction-to-Ambient Thermal Resistance [a]	420	℃/W
$R_{\theta JC}$	Junction-to-Case Thermal Resistance	160	

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.

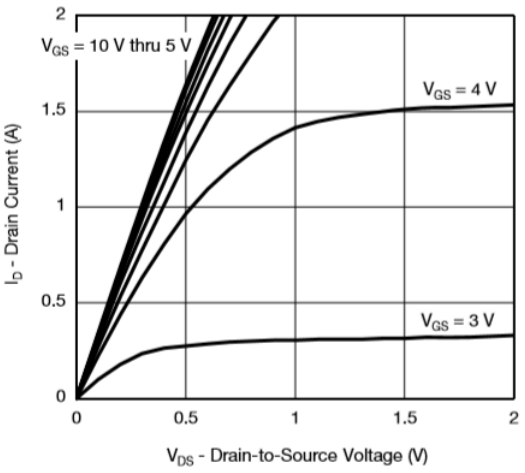
b. Repetitive rating, pulse width limited by junction temperature.

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.

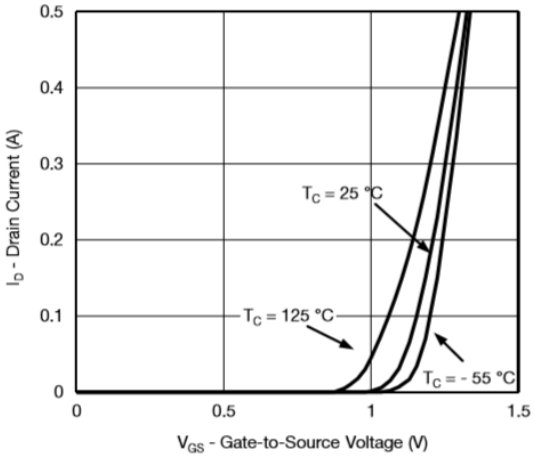
➢ **Electronics Characteristics**(T_A=25℃ unless otherwise noted)

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	0.6	1	1.3	V
$R_{DS(on)}$	Drain-Source On-Resistance	VGS=4.5V, ID=1A		450	700	mR
		VGS=2.5V, ID=1A		520	900	
		VGS=1.8V, ID=0.5A		950	1500	
I_{DSS}	Zero Gate Voltage Drain Current	VDS=24V, VGS=0V			1	uA
I_{GSS}	Gate-Source leak current	VGS=±10V, VDS=0V			±10	uA
G_{FS}	Transconductance	VDS=5V, ID=1A		1		S
V_{SD}	Forward Voltage	VGS=0V, IS=1A		0.9	1.3	V
Ciss	Input Capacitance	VDS=15V, VGS=0V, f=1MHZ		62		pF
Coss	Output Capacitance			16		
Crss	Reverse Transfer Capacitance			4		
Qg	Total Gate Charge	VDS=15V, VGS=4.5V, ID=3.8A		1		nC
Qgs	Gate Source Charge			0.3		
Qgd	Gate Drain Charge			0.2		
$T_{D(ON)}$	Turn-on delay time	VDS=15V, VGS=6V, RL=30R, RGEN=1R		3		ns
Tr	Rise time			14		
$T_{D(OFF)}$	Turn-off delay time			11		
Tf	Fall time			9		

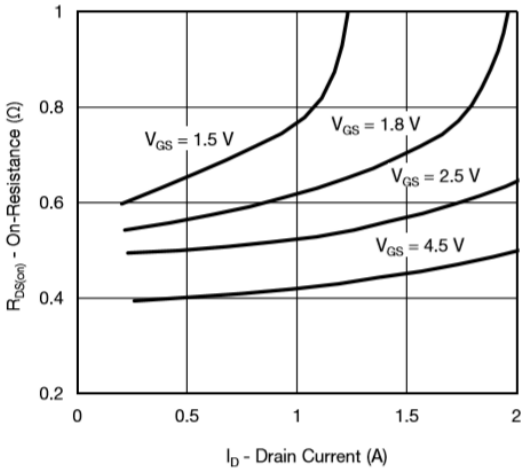
➢ N-Channel Typical Characteristics(T_A=25℃ unless otherwise noted)



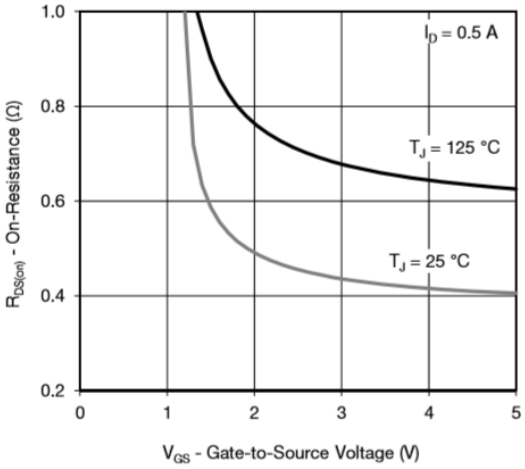
Output Characteristics



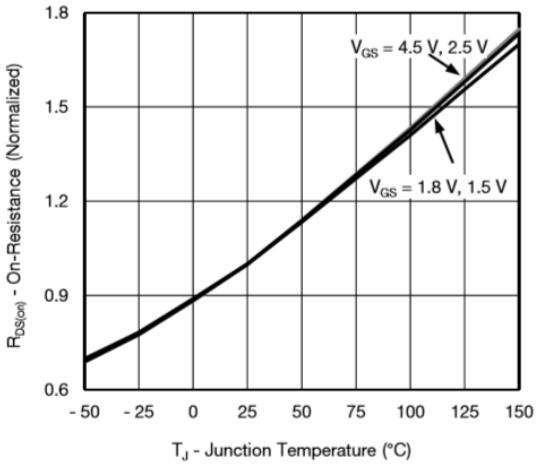
Transfer Characteristics



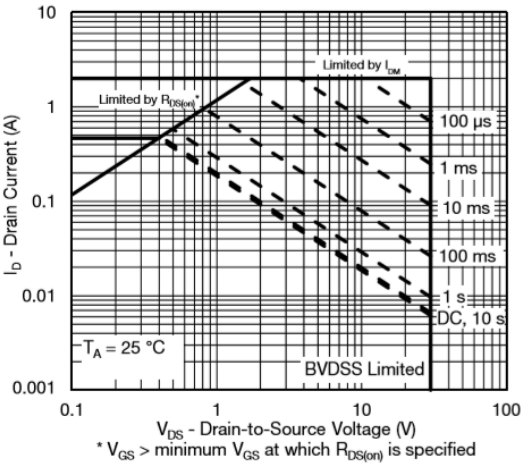
On-Resistance vs. Drain Current



On-Resistance vs. Gate-to-Source Voltage

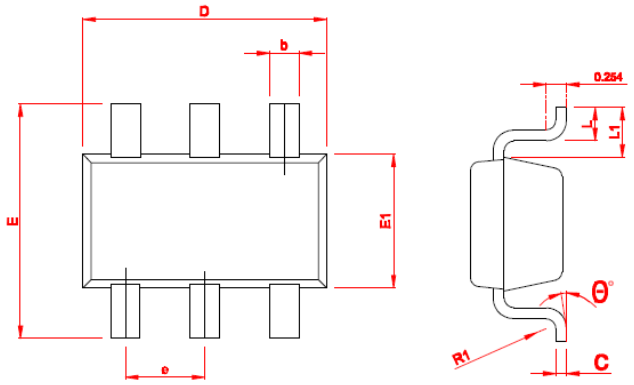


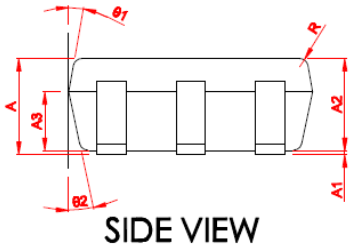
On-Resistance vs. Junction Temperature



Safe Operating Area, Junction-to-Ambient

➢ Package Information





SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	1.06	1.15	1.24
* A1	0.01	0.05	0.09
* A2	1.05	1.10	1.15
A3	0.65	0.70	0.75
* b	0.30	0.35	0.45
* c	0.117	0.127	0.157
* D	2.87	2.92	2.97
* E	2.72	2.80	2.88
* E1	1.55	1.60	1.65
* e	0.90	0.95	1.00
* L	0.32	0.40	0.48
* L1	0.55	0.60	0.65
R	0.10 REF		
R1	0.12 REF		
* θ	0	--	8°
θ1	8°	10°	12°
θ2	10°	12°	14°

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