



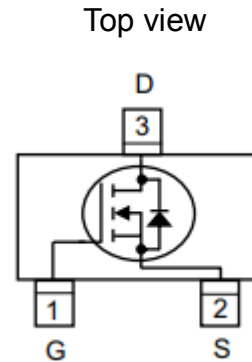
SSC8034GS6B

N-Channel Enhancement Mode MOSFET

➤ Features

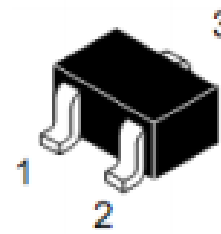
VDS	VGS	RDSON Typ.	ID
30V	±12V	36mR@10V	4A
		43mR@4V5	
		48mR@2V5	

➤ Pin configuration



➤ Description

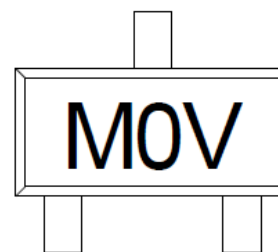
This device uses advanced trench technology to provide excellent RDSON and low gate charge and operation with gate voltages as low as 2.5V. This device is suitable for use as a load switch or in PWM applications.



SOT23

➤ Applications

- Load Switch
- Portable Devices
- DCDC conversion



Marking

➤ Ordering Information

Device	Package	Shipping
SSC8034GS6B	SOT23	3000/Reel



➤ **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	± 12	V
I_D	Continuous Drain Current ^a	4	A
I_{DM}	Pulsed Drain Current ^b	18	A
P_D	Power Dissipation ^c	1.2	W
P_{DSM}	Power Dissipation ^a	0.6	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 ^a		220	$^{\circ}\text{C}/\text{W}$
$R_{\theta JC}$	Junction-to-Case Thermal Resistance		110	

Note:

- The value of $R_{\theta JA}$ is measured with the device mounted on 1 in² FR-4 board with 2oz.copper, in a still air environment with $T_A=25^{\circ}\text{C}$. The value in any given application depends on the user is specific board design. The current rating is based on the $t \leq 10\text{s}$ thermal resistance rating.
- Repetitive rating, pulse width limited by junction temperature.
- The power dissipation P_D is based on $T_{J(MAX)}=150^{\circ}\text{C}$, using junction-to-case thermal resistance, and is more useful in setting the upper dissipation limit for cases where additional heat sinking is used.

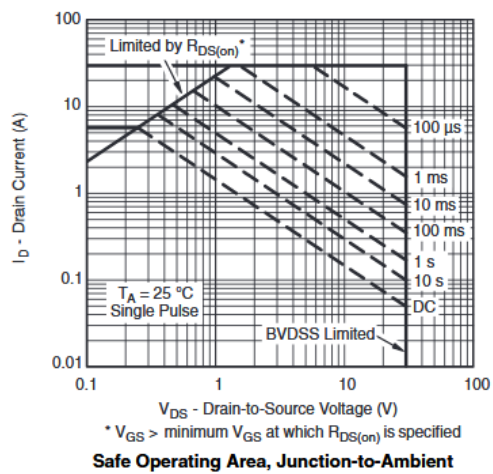
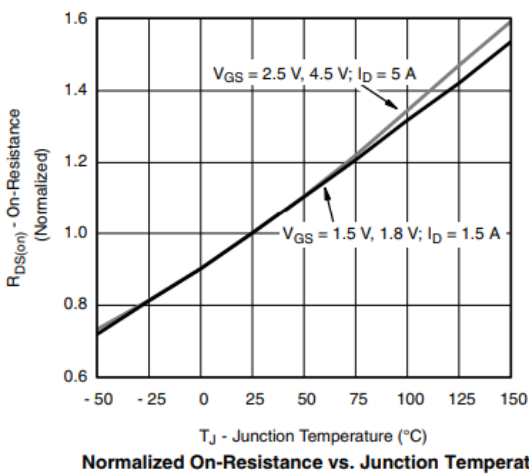
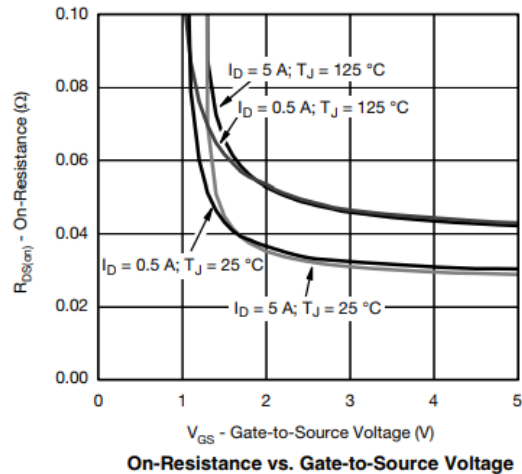
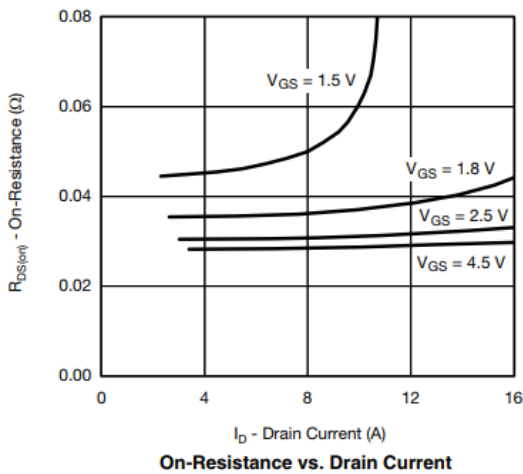
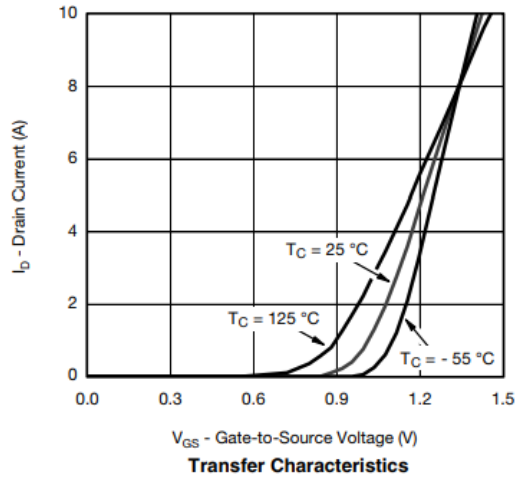
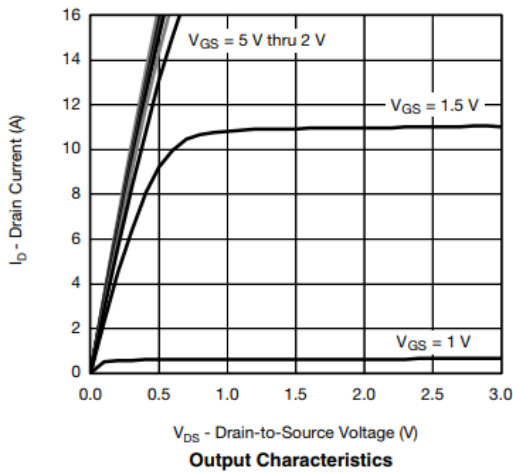


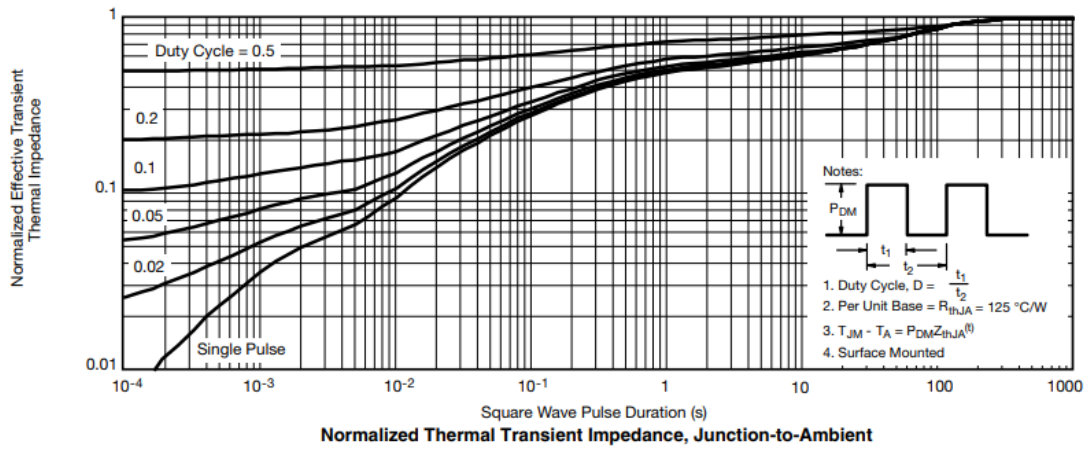
➤ **Electronics Characteristics**($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Test Conditions	Min	Typ.	Max	Unit
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0V, I_D=250\mu A$	30			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}, I_D=250\mu A$	0.55	0.7	1.0	V
$R_{DS(on)}$	Drain-Source On- Resistance	$V_{GS}=10V, I_D=4A$		36	47	mR
		$V_{GS}=4.5V, I_D=3.5A$		43	49	
		$V_{GS}=2.5V, I_D=3A$		48	59	
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=24V, V_{GS}=0V$			1	μA
I_{GSS}	Gate-Source leak current	$V_{GS}=\pm 12V, V_{DS}=0V$			± 100	nA
G_{FS}	Transconductance	$V_{DS}=5V, I_D=4A$		8		S
V_{SD}	Forward Voltage	$V_{GS}=0V, I_S=1.1A$		0.7	1.75	V
C_{iss}	Input Capacitance	$V_{DS}=10V, V_{GS}=0V, f=1MHz$		720		pF
C_{oss}	Output Capacitance			278		
C_{rss}	Reverse Transfer Capacitance			332		
$T_{D(ON)}$	Turn-on delay time		$V_{GS}=10V,$ $V_{DS}=15V, R_G=3R, R_L=2.3R$		18	
T_r	Rise Time			10		
$T_{D(OFF)}$	Turn-off delay time			70		
T_f	Fall Time			21		
Q_g	Total Gate charge	$V_{GS}=4.5V, V_{DS}=10V, I_D=4A$		11		nC
Q_{gs}	Gate to Source charge			1.2		
Q_{gd}	Gate to Drain charge			3		



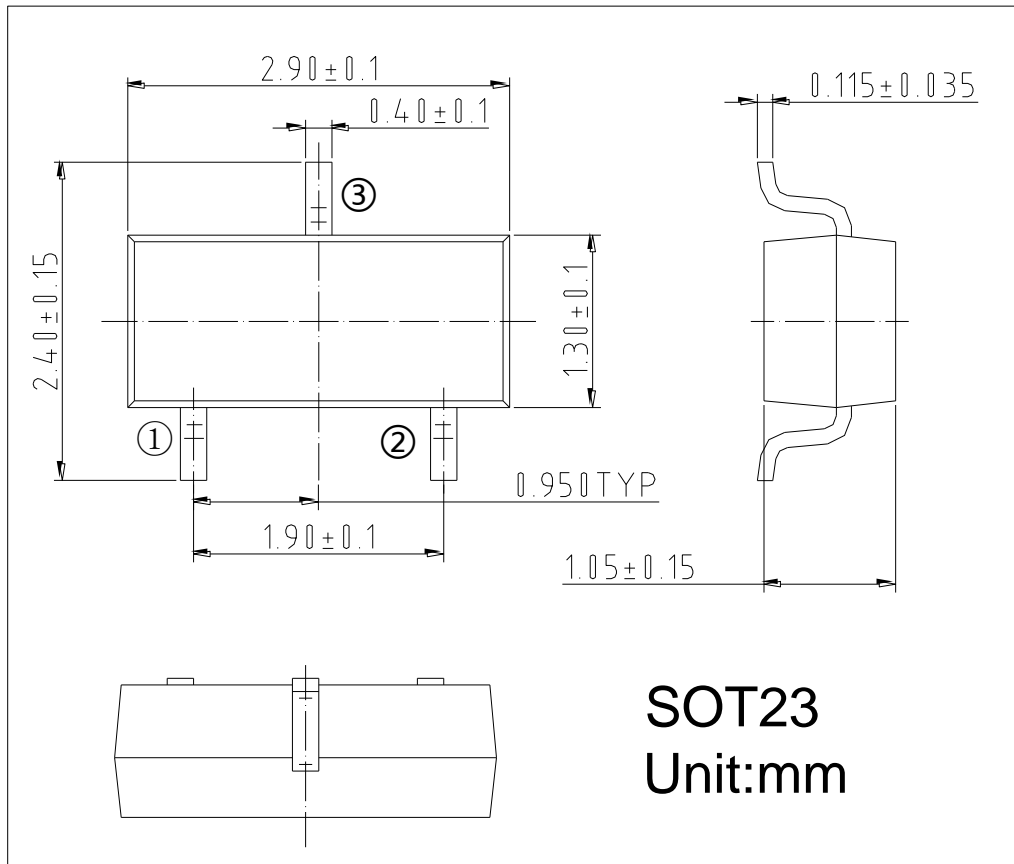
➤ **Typical Characteristics** ($T_A=25^\circ\text{C}$ unless otherwise noted)







➤ Package Information



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