

SSC8035GS6

P-Channel Enhancement Mode MOSFET

➤ Features

VDS	VGS	RDSON Typ.	ID
-30V	±12V	51mR@-10V	-4A
		60mR@-4V5	
		98mR@-2V5	

➤ Description

This device is particularly suited for low voltage application such as portable equipment, power management and other battery powered circuits, and low in-line power dissipation are needed in a very small outline surface mount package. Excellent thermal and electrical capabilities.

➤ Applications

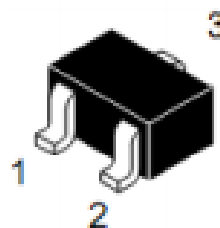
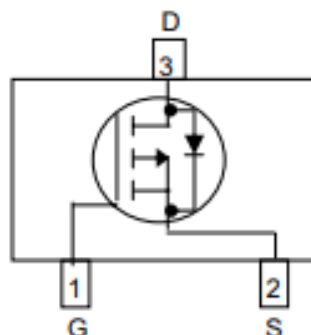
- Load Switch
- Portable Devices
- DCDC conversion

➤ Ordering Information

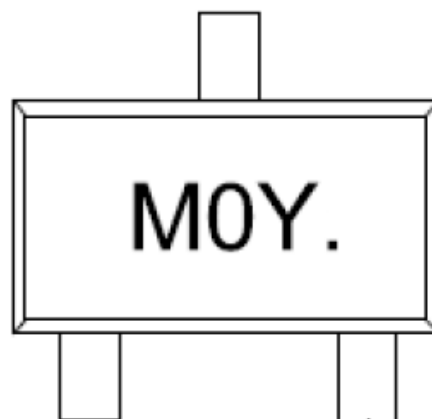
Device	Package	Shipping
SSC8035GS6	SOT23	3000/Reel

➤ Pin configuration

Top view



SOT23



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	± 12	V
I_D	Continuous Drain Current	-4	A
I_{DM}	Pulsed Drain Current	-17	A
P_D	Power Dissipation	0.25	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		499	$^{\circ}\text{C}/\text{W}$
$R_{\theta JC}$	Junction-to-Case Thermal Resistance		299	

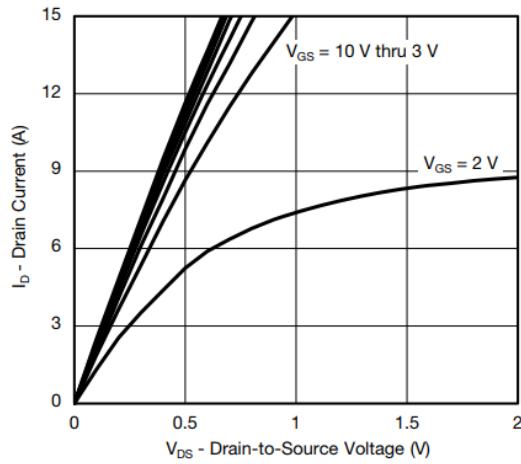
➤ **Electronics Characteristics**($T_A=25^{\circ}\text{C}$ unless otherwise noted)

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	$V_{DS}=V_{GS}, I_D=-250\mu\text{A}$	-0.7	-1	-1.3	V
$R_{DS(on)}$	Drain-Source On- Resistance	$V_{GS}=-10V, I_D=-4A$		51	65	mR
		$V_{GS}=-4.5V, I_D=-2A$		60	75	
		$V_{GS}=-2.5V, I_D=-1A$		98	120	

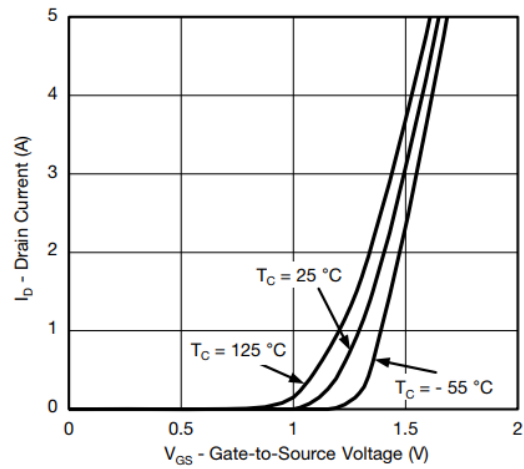
Symbol	Parameter	Test Conditions	Min	Typ.	Max	Unit
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=-30V, V_{GS}=0V$			-1	μA
I_{GSS}	Gate-Source leak current	$V_{GS}=\pm 12V, V_{DS}=0V$			± 100	nA
G_{FS}	Forward Transconductance	$V_{DS}=-5V, I_D=-3A$		10		S
V_{SD}	Forward Voltage	$V_{GS}=0V, I_S=-1A$		-0.78	-1	V

Symbol	Parameter	Test Conditions	Min	Typ.	Max	Unit
C_{iss}	Input Capacitance	$V_{DS}=-4V, V_{GS}=0V,$ $F=1MHz$		600		pF
C_{oss}	Output Capacitance			85		
C_{rss}	Reverse Transfer Capacitance			66		
$T_{D(ON)}$	Turn-on delay time	$V_{GS}=-6V,$ $V_{GEN}=-4.5V, R_L=6R,$ $R_G=6R, I_D=-1.0A$		13	25	ns
$T_{D(OFF)}$	Turn-off delay time			40	70	

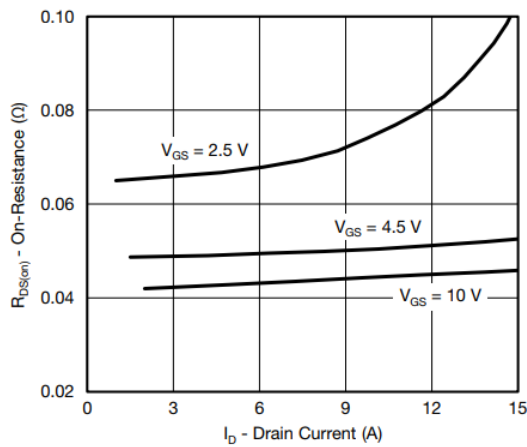
➤ Typical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)



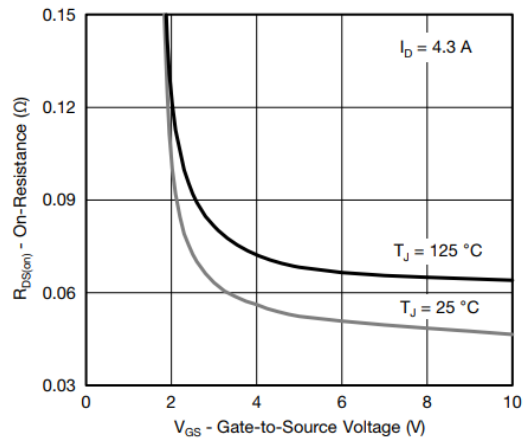
Output Characteristics



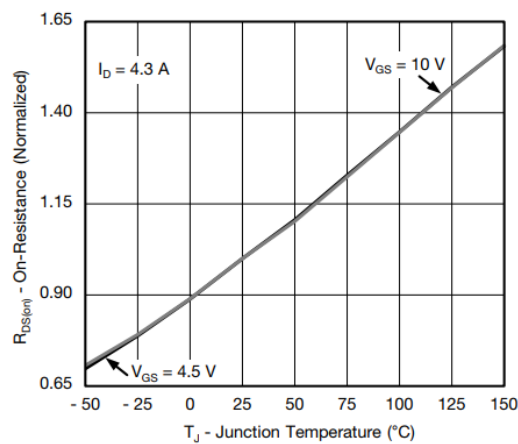
Transfer Characteristics



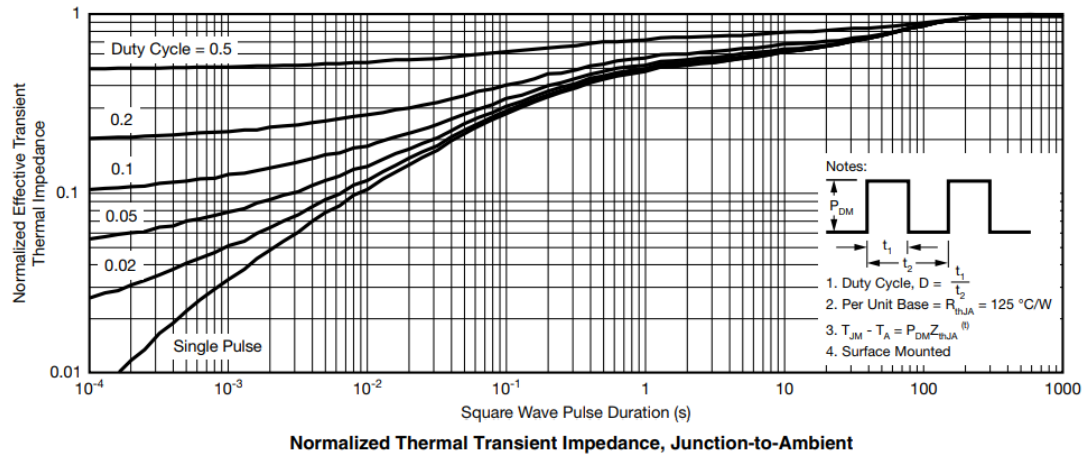
On-Resistance vs. Drain Current



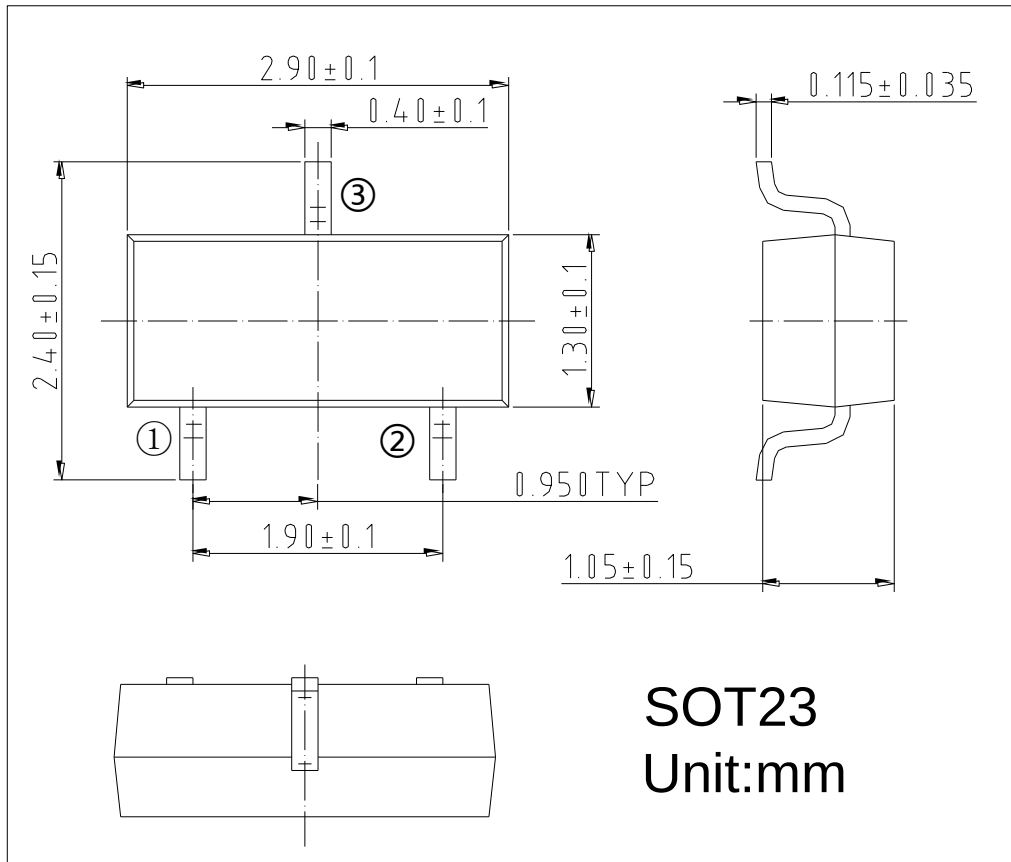
On-Resistance vs. Gate-to-Source Voltage



On-Resistance vs. Junction Temperature



➤ Package Information



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