



SSC8034GS6

N-Channel Enhancement Mode MOSFET

Features

V _{DS}	V _{GS}	R _{DS(ON)} Typ.	I _D
30V	±12V	18mR@10V	7A
		20mR@4V5	
		30mR@2V5	

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.

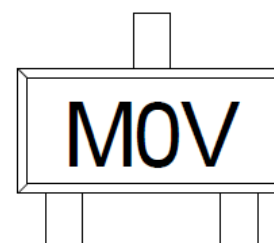
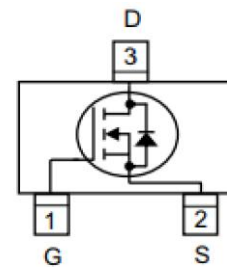
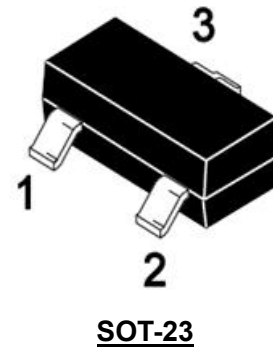
Applications

- Load Switch
- Portable Devices
- DCDC Conversion

Ordering Information

Device	Package	Shipping
SSC8034GS6	SOT-23	3000/Reel

Pin configuration





➤ **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	7	A
I_{DM}	Pulsed Drain Current ^b	30	A
P_D	Power Dissipation ^c	1.7	W
P_{DSM}	Power Dissipation ^a	0.85	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		155	$^{\circ}\text{C}/\text{W}$
$R_{\theta JC}$	Junction-to-Case Thermal Resistance		80	

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 power dissipation 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 $T_{J(\text{MAX})}=150^{\circ}\text{C}$, using junction-to-case thermal resistance, and is more useful in setting the upper dissipation limit for cases where additional heat sinking is used.

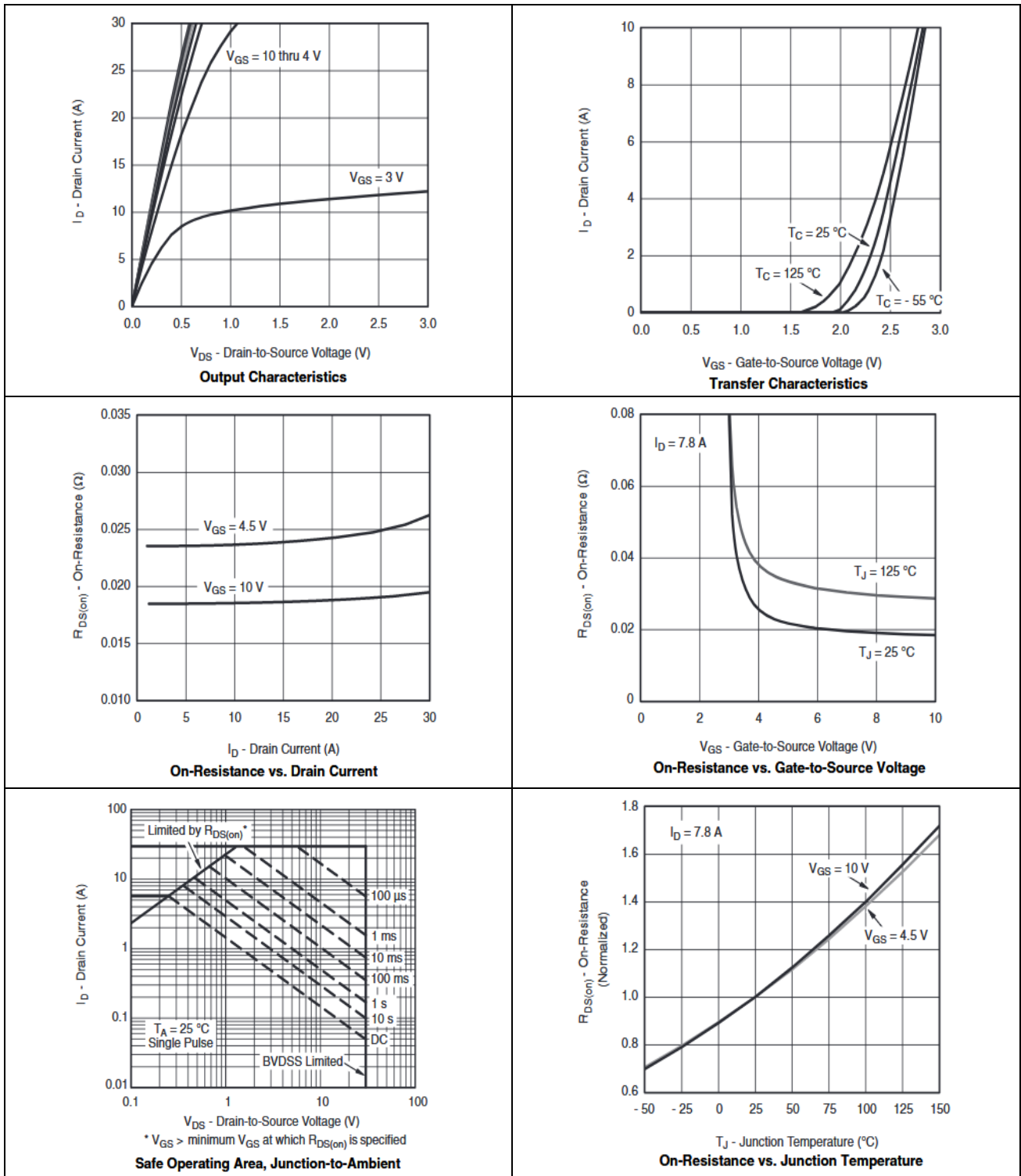


➤ **Electrical Characteristics (T_A=25°C unless otherwise noted)**

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Drain-Source Breakdown Voltage	V _{(BR)DSS}	V _{GS} = 0V, I _D = 250μA	30			V
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = 250uA	0.5	0.8	1.0	V
Drain-Source On-Resistance	R _{DS(on)}	V _{GS} = 10V, I _D = 5.8A		18	25	mΩ
		V _{GS} = 4.5V, I _D = 5A		20	30	
		V _{GS} = 2.5V, I _D = 4A		30	50	
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = 24V, V _{GS} = 0V			1	μA
Gate-Source Leak Current	I _{GSS}	V _{GS} = ±12V, V _{DS} = 0V			±100	nA
Transconductance	G _{FS}	V _{DS} = 5V, I _D = 5A		10		S
Forward Voltage	V _{SD}	V _{GS} = 0V, I _S = 1.1A		0.7	1.5	V
Input Capacitance	C _{ISS}	V _{DS} = 10V, V _{GS} = 0V, f = 1MHz		464		pF
Output Capacitance	C _{OSS}			78		
Reverse Transfer Capacitance	C _{RSS}			64		
Turn-on Delay Time	T _{D(ON)}	V _{GS} = 10V, V _{DS} = 15V, R _G = 3Ω, R _L =2.3Ω		18		ns
Rise Time	T _r			9		
Turn-off Delay Time	T _{D(OFF)}			70		
Fall Time	T _f			22		
Total Gate Charge	Q _G	V _{GS} =4.5V, V _{DS} =10V, I _D =4A		9		nC
Gate Source Charge	Q _{GS}			2		
Gate Drain Charge	Q _{GD}			2.3		

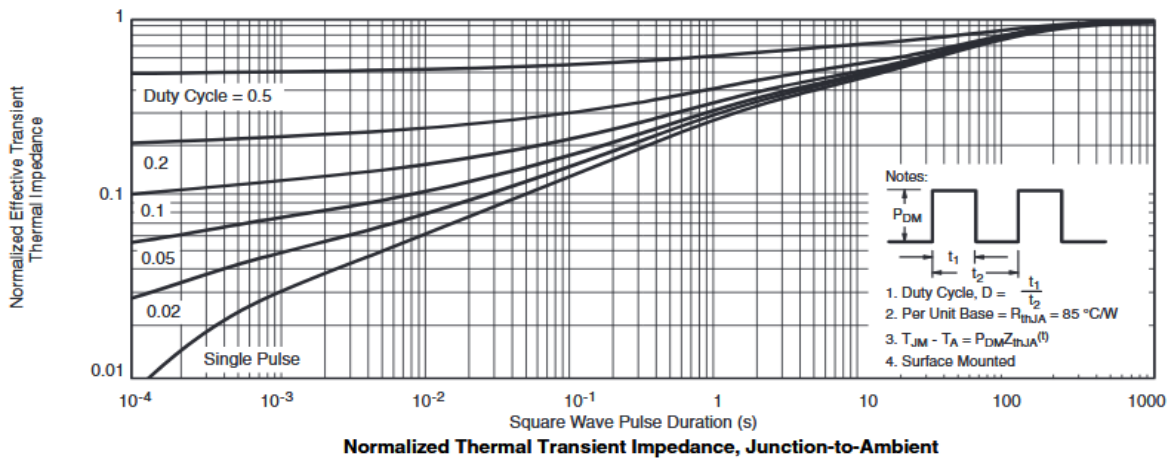


➤ Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

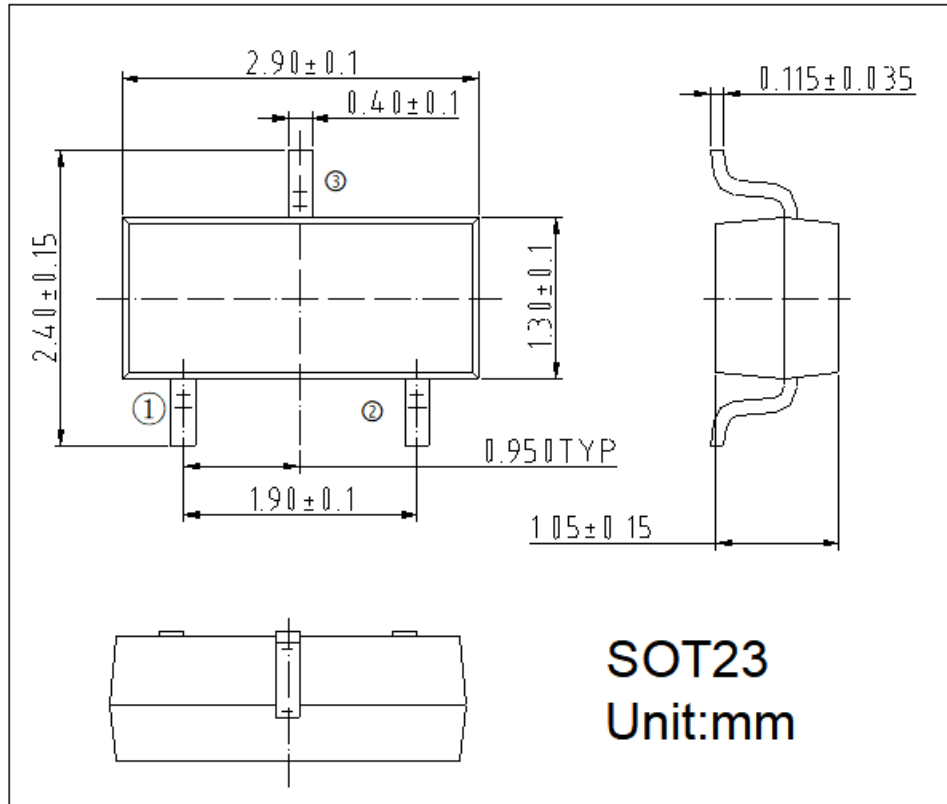




➤ Typical Performance Characteristics (T_A=25°C unless otherwise noted)

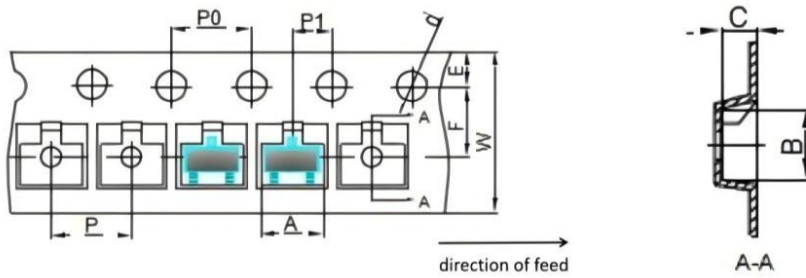


➤ Package Information



➤ SOT-23 Tape and reel

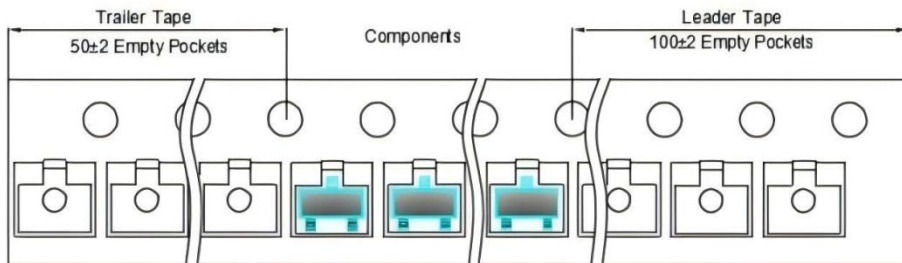
SOT-23 Embossed Carrier Tape



Dimensions are in millimeter

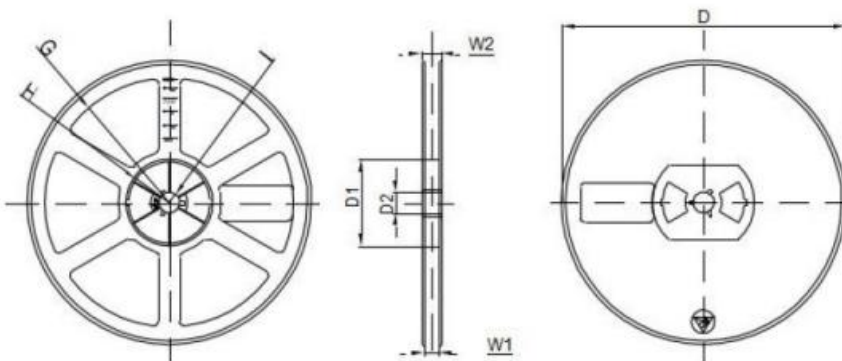
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-23	3.15±0.1	2.77±0.1	1.22±0.1	Ø1.50	1.75±0.1	3.5±0.05	4.0±0.1	4.0±0.1	2±0.05	8±0.1

SOT-23 Tape Leader and Trailer



SOT23 带尾(空封 40 格)、带头 (空封 100 格) 空封数

SOT-23 Reel



Dimensions are in millimeter

Reel Option	D	D1	D2	G	H	I	W1	W2
7" Dia	Ø178.00	Ø54±0.2	13.3±0.2	R79.00	R26.00	R6.50±0.2	9±0.5	12±0.5



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