

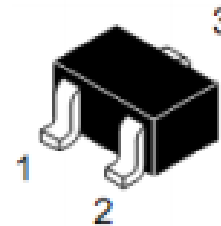
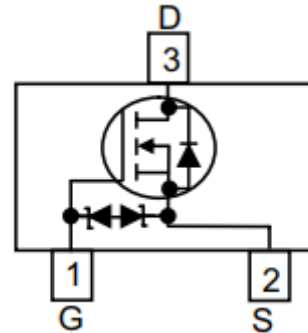
**SSC8160GS6**
**N-Channel Small Switching MOSFET with ESD Protection**

 ➤ **Features**

VDS	VGS	RDS(on) Typ.	ID	ESD
60V	±20V	2R@10V	0.3A	3kV
		3R@4V5		

 ➤ **Pin configuration**

Top view



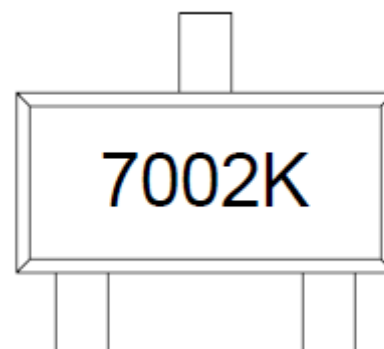
SOT23

 ➤ **Description**

This device is an N-Channel enhancement mode MOSFET, with low on-resistance, fast switching speed and low threshold voltage, it is ideal for portable equipment.

 ➤ **Applications**

- Direct Logic-Level Interface: TTL/CMOS
- Drivers: Relays, Solenoids, Lamps, Hammers
- Display, Memories, Transistors, etc.
- Battery Operated System
- Solid-State Relays



Marking

 ➤ **Ordering Information**

Device	Package	Shipping
SSC8160GS6	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	60	V
$V_{GSS}$	Gate-to-Source Voltage	$\pm 20$	V
$I_D$	Continuous Drain Current	0.3	A
$I_{DM}$	Pulsed Drain Current	0.8	A
$P_D$	Power Dissipation	0.35	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		357	$^{\circ}\text{C}/\text{W}$
$R_{\theta JC}$	Junction-to-Case Thermal Resistance		214	

➤ **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	$V_{GS}=0V, I_D=10\mu\text{A}$	60			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}, I_D=250\mu\text{A}$	1		2.5	V
$R_{DS(on)}$	Drain-Source On- Resistance	$V_{GS}=10V, I_D=0.5\text{A}$		2	6.6	R
		$V_{GS}=4.5V, I_D=0.05\text{A}$		3	8	

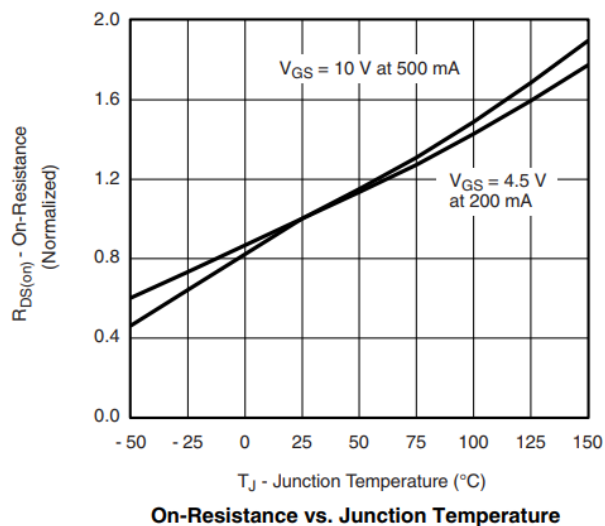
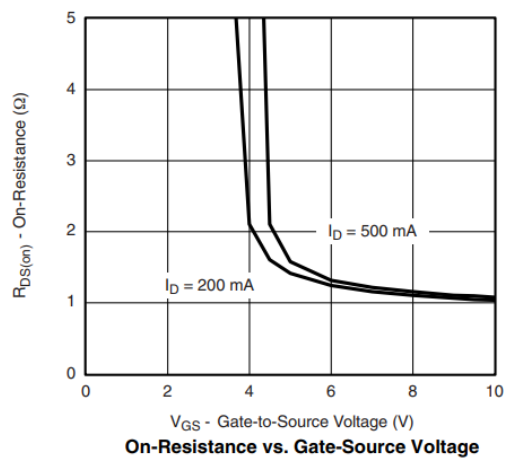
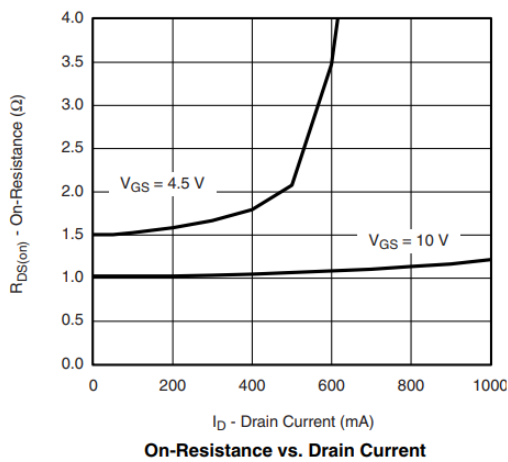
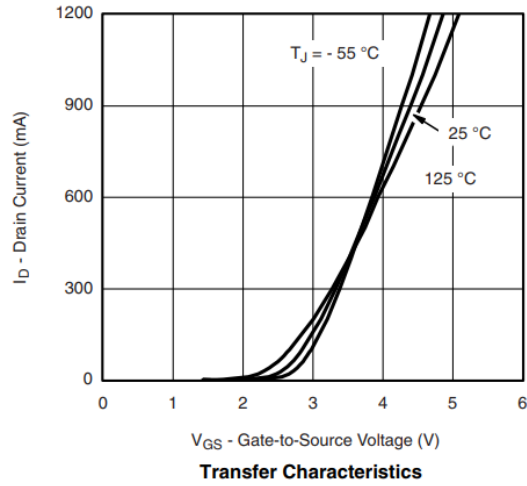
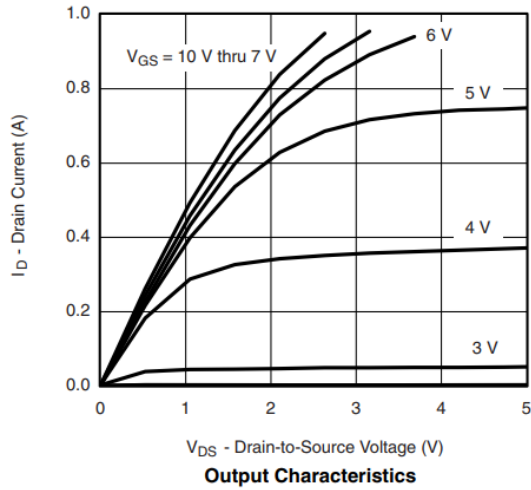


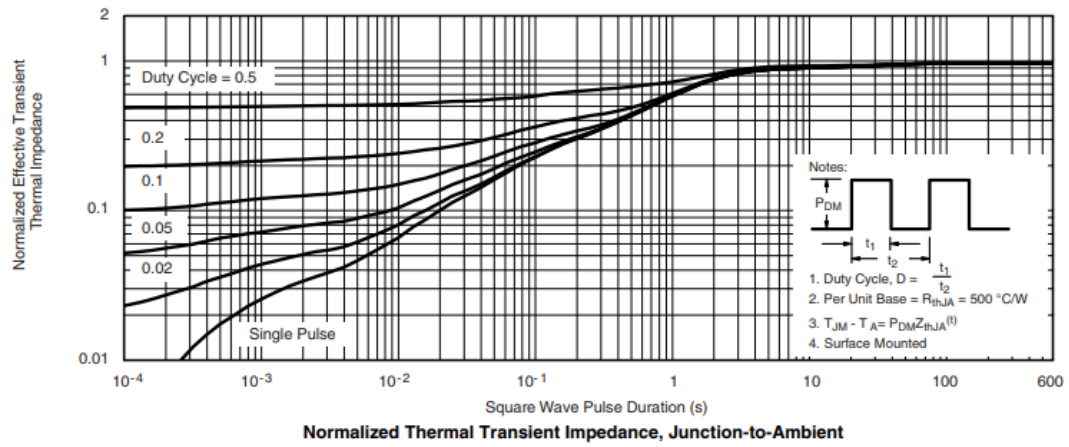
## SSC8160GS6

Symbol	Parameter	Test Conditions	Min	Typ.	Max	Unit
$I_{DSS}$	Zero Gate Voltage Drain Current	$V_{DS}=60V, V_{GS}=0V$			1	$\mu A$
$I_{GSS}$	Gate-Source leak current	$V_{GS}=\pm 20V, V_{DS}=0V$			$\pm 10$	$\mu A$
$G_{FS}$	Forward Transconductance	$V_{DS}=10V, I_D=0.2A$	80			ms
$V_{SD}$	Forward Voltage	$V_{GS}=0V, I_S=0.2A$		0.7	1.3	V

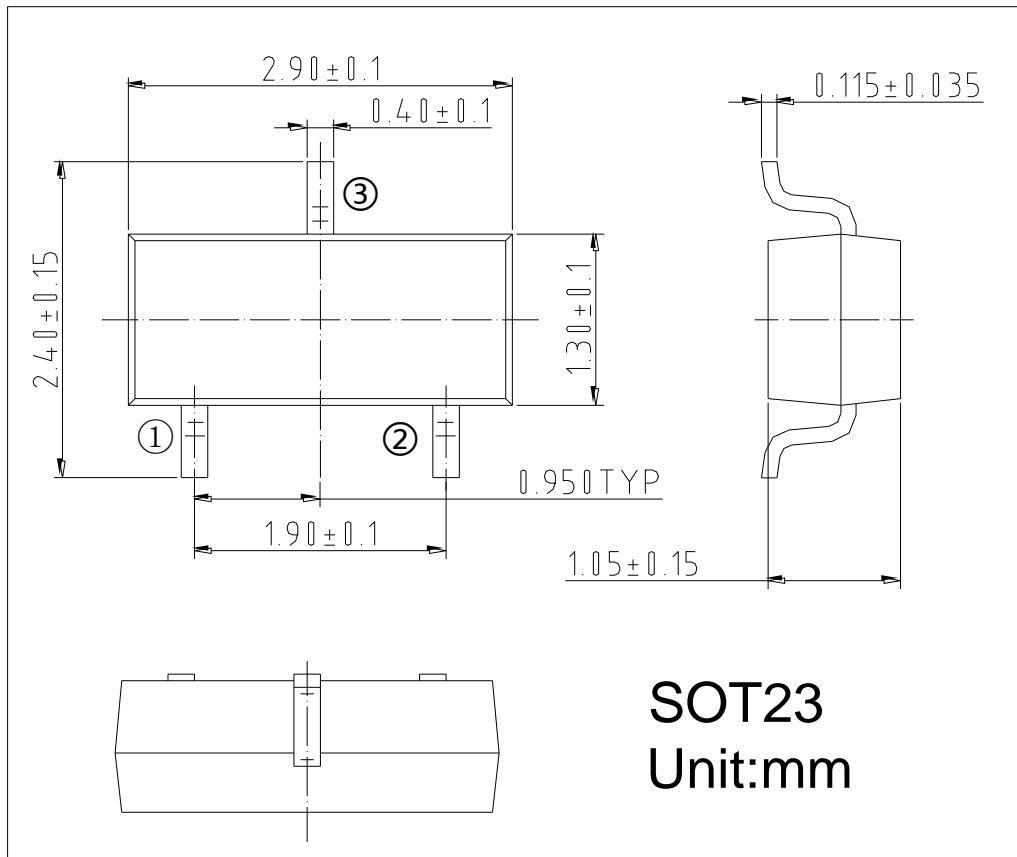
Symbol	Parameter	Test Conditions	Min	Typ.	Max	Unit
$C_{iss}$	Input Capacitance	$V_{DS}=25V, V_{GS}=0V,$ $F=1MHz$		32		pF
$C_{oss}$	Output Capacitance			7		
$C_{rss}$	Reverse Transfer Capacitance			3		
$T_{D(ON)}$	Turn-on delay time	$V_{GS}=5V,$ $V_{DS}=5V,$ $R_G=10R, R_L=500R, I_D=10mA$			15	ns
$T_{D(OFF)}$	Turn-off delay time				35	

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





➤ Package Information



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