

SSC8036GSB
N-Channel Enhancement Mode MOSFET

 ➤ **Features**

VDS	VGS	RDSON Typ.	ID
30V	±20V	15mR@10V	8A
		20mR@4V5	

 ➤ **Description**

The SSC8036GSB is N-Channel enhancement MOS Field Effect Transistor. Uses advanced trench technology and design to provide excellent RDSON with low gate charge. This device is suitable for use in DC-DC conversion and power switch applications.

 ➤ **Applications**

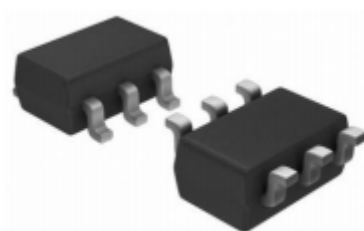
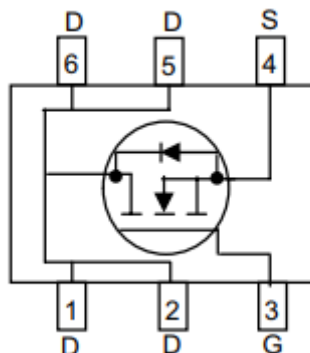
- Load Switch
- Portable Switch
- DCDC conversion
- Charging
- Driver for Relay, Motor, Solenoid, LED etc.

 ➤ **Ordering Information**

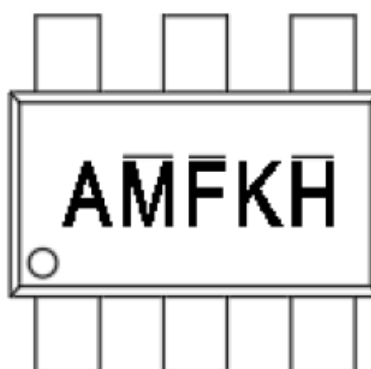
Device	Package	Shipping
SSC8036GSB	SOT23-6	3K/Reel

 ➤ **Pin configuration**

Top view



Bottom View



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	± 20	V
I_D	Continuous Drain Current	8	A
I_{DM}	Pulsed Drain Current	18	A
P_D	Power Dissipation	1.5	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		99	$^{\circ}\text{C}/\text{W}$
$R_{\theta JC}$	Junction-to-Case Thermal Resistance		49	

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

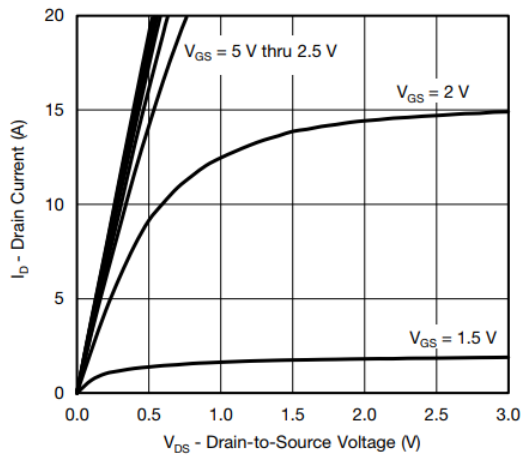
Symbol	Parameter	Test Conditions	Min	Typ.	Max	Unit
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0V, I_D=250\mu\text{A}$	30			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}, I_D=250\mu\text{A}$	1.3	1.5	1.7	V
$R_{DS(on)}$	Drain-Source On- Resistance	$V_{GS}=10V, I_D=5A$		15	18	mR
		$V_{GS}=4.5V, I_D=3A$		20	22	

**SSC8036GSB**

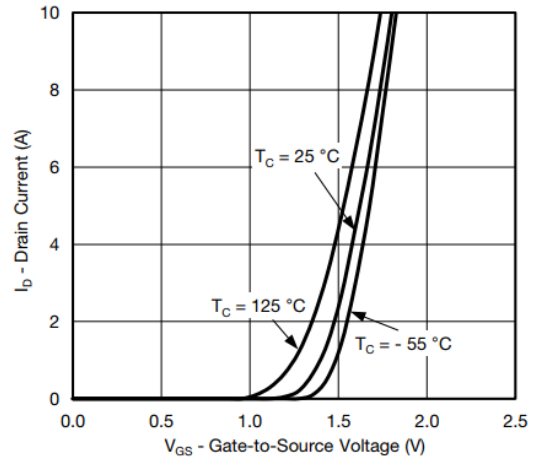
Symbol	Parameter	Test Conditions	Min	Typ.	Max	Unit
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=24V, V_{GS}=0V$			1	μA
I_{GSS}	Gate-Source leak current	$V_{GS}=\pm 20V, V_{DS}=0V$			± 100	nA
G_{FS}	Forward Transconductance	$V_{DS}=5V, I_D=3A$		7.5		S
V_{SD}	Forward Voltage	$V_{GS}=0V, I_S=1.5A$		0.7	1	V

Symbol	Parameter	Test Conditions	Min	Typ.	Max	Unit
C_{iss}	Input Capacitance	$V_{DS}=15V, V_{GS}=0V,$ $f=1MHz$		600		pF
C_{oss}	Output Capacitance			80		
C_{rss}	Reverse Transfer Capacitance			70		
$T_{D(ON)}$	Turn-on delay time	$V_{GS}=10V,$ $V_{DS}=15V, I_D=3A$			5	ns
$T_{D(OFF)}$	Turn-off delay time				40	

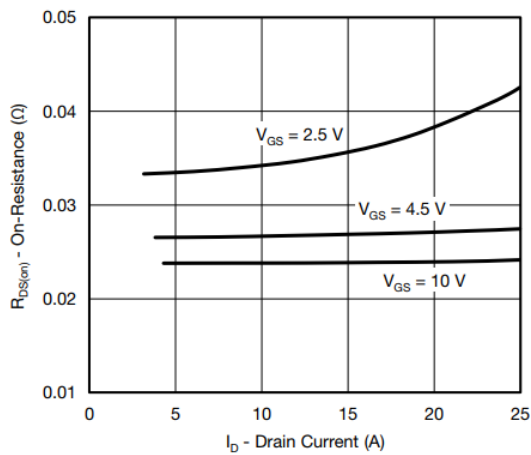
➤ **Typical Characteristics** ($T_A=25^\circ\text{C}$ unless otherwise noted)



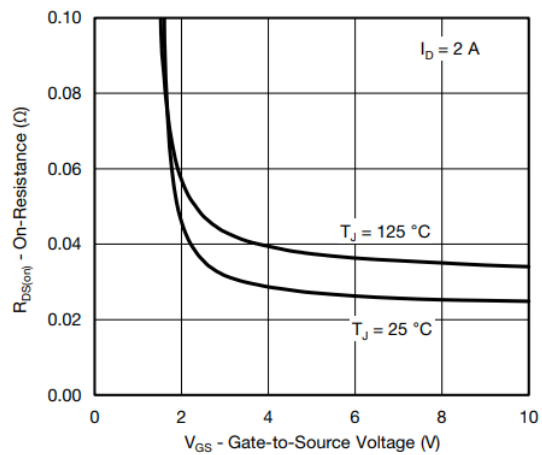
Output Characteristics



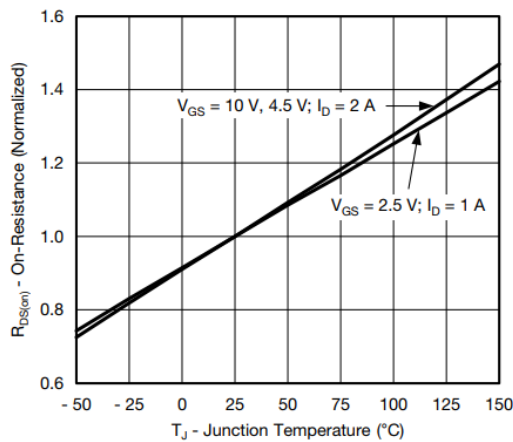
Transfer Characteristics



On-Resistance vs. Drain Current

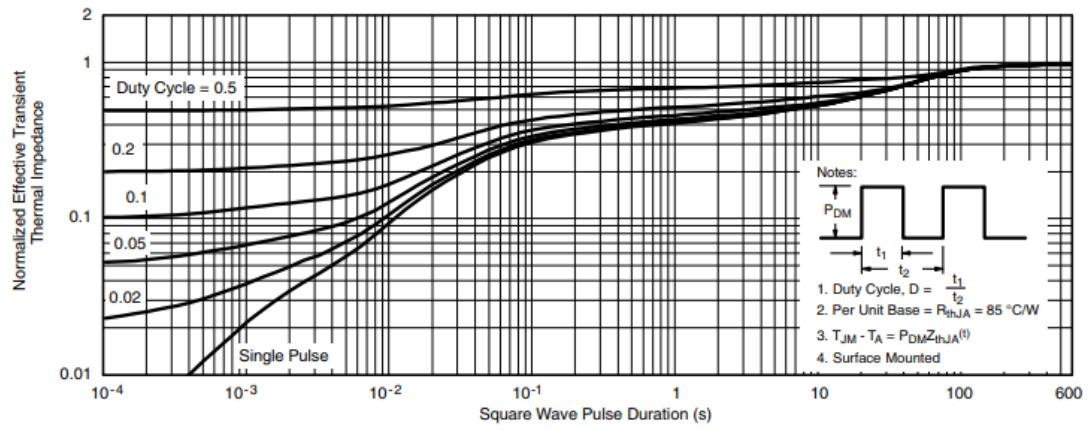


On-Resistance vs. Gate-to-Source Voltage

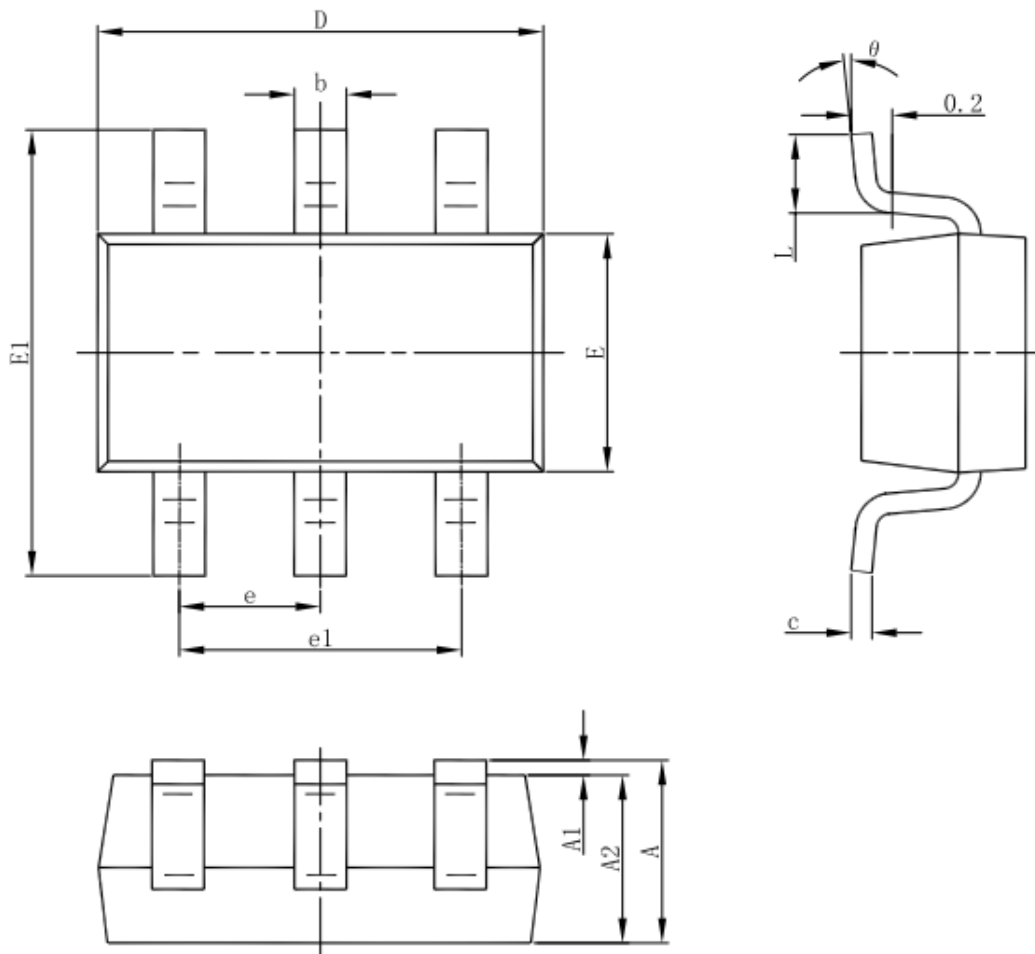


On-Resistance vs. Junction Temperature

徐丹 <xud@afsemi.com>



Normalized Thermal Transient Impedance, Junction-to-Ambient

➤ Package Information


Symbol	Dimensions in millimeter		
	Min.	Typ.	Max.
A	1.050	1.150	1.250
A1	0.000	0.050	0.100
A2	1.050	1.100	1.150
b	0.300	0.400	0.500
c	0.100	0.150	0.200
D	2.820	2.920	3.020
E	1.500	1.600	1.700
E1	2.650	2.800	2.950
e	0.950(BSC)		
e1	1.800	1.900	2.000
L	0.300		0.600
θ	0°		8°



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