SSC8062GT8

N-Channel Enhancement Mode Power MOSFET

- **Features**

VDS	VGS	RDSon TYP	ID
60V	±20V	30mR@10V	9A
		35mR@4V5	

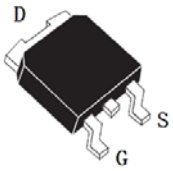
- **Applications**

  - E-tool;
  - E-Toy;
  - Motor Driver

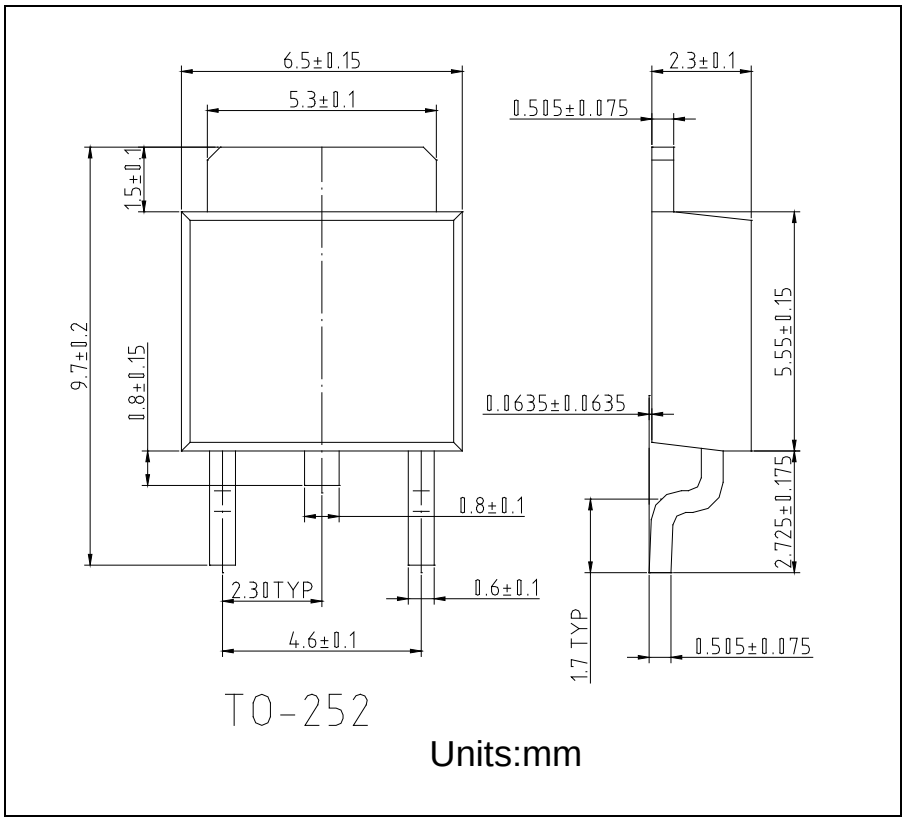
- **General Description**

SSC8062GT8 uses advanced trench technology to provide excellent $R_{DS(ON)}$. It is particularly suitable for DCDC conversion and motor driver.

- **Pin Configuration**



- **Package Information**



- **Absolute Maximum Ratings** @ T_A = 25°C unless otherwise specified

Parameter		Symbol	Ratings	Unit
Drain-Source Voltage		V_{DSS}	60	V
Gate-Source Voltage		V_{GSS}	±20	V
Drain Current	Continuous	I_D	9	A
	Pulse	I_{DM}	45	
Total Power Dissipation (note1)		P_D	2.5	W
Operating and Storage Junction Temperature Range		T_J, T_{STG}	-55 to +150	°C

Note1: Surface Mounted on 1in pad area.

- **Electrical Characteristics** @ T_A = 25°C unless otherwise specified

Parameter(note2)	Symbol	Test Conditions	Min	Typ	Max	Unit
OFF CHARACTERISTICS						
Drain–Source Breakdown Voltage	$V_{(BR)DSS}$	V_{GS} = 0 V, I_D = 250 uA	60	--	--	V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS} = 60 V, V_{GS} = 0 V	--	--	1	uA
Gate–Body Leakage	I_{GSS}	V_{GS} = ± 20 V, V_{DS} = 0 V	--	--	±100	nA
ON CHARACTERISTICS						
Gate Threshold Voltage	$V_{GS(TH)}$	V_{DS} = V_{GS}, I_D = 250 uA	1	1.4	3	V
Static Drain–Source On–Resistance	$R_{DS(ON)}$	V_{GS} = 10 V, I_D = 5.5 A	--	30	41	mR
		V_{GS} = 4.5 V, I_D = 4.5 A	--	35	52	
DYNAMIC CHARACTERISTICS						
Input Capacitance	C_{ISS}	V_{DS} = 10 V, V_{GS} = 0 V, F = 1MHz	--	1180	--	pF
Output Capacitance	C_{OSS}		--	170	--	
Reverse Transfer Capacitance	C_{RSS}		--	100	--	
SWITCHING CHARACTERISTICS						
Turn–On Delay Time	$T_{D(ON)}$	V_{GS}=10V, V_{DS}=30V, R_L=5.4R, R_{GEN}=3R, I_D=5.5A	--	--	25	nS
Turn–On Rise Time	T_R		--	--	70	
Turn–Off Delay Tim	$T_{D(OFF)}$		--	--	300	
Turn–Off Fall Time	T_F		--	--	150	
DRAIN-SOURCE DIODE CHARACTERISTICS AND MAXIMUM RATINGS						
Diode Forward Voltage	V_{SD}	V_{GS} = 0 V, I_S = 2 A	0.5	0.77	1.0	V

Note2: Short duration test pulse used to minimize self-heating effect.

Typical Performance Characteristics

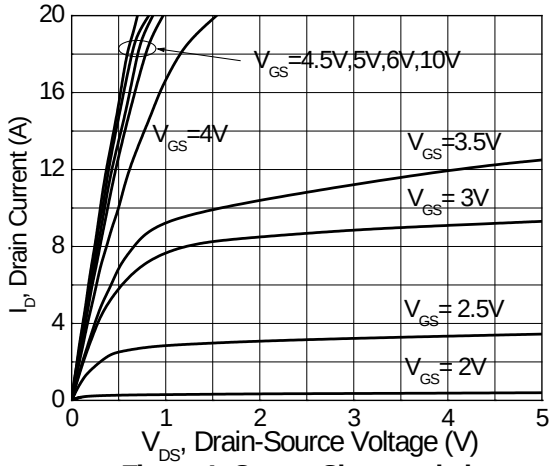


Figure 1. Output Characteristics

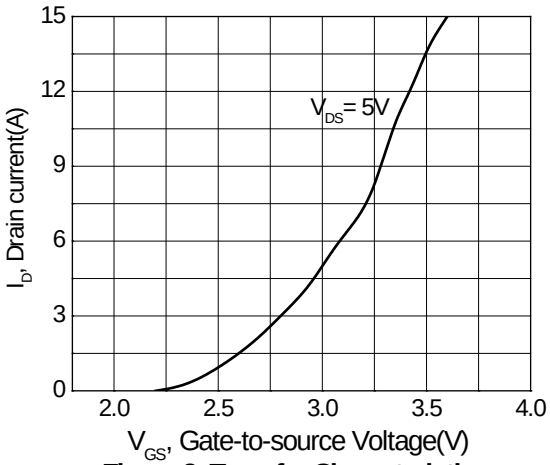


Figure 2. Transfer Characteristics

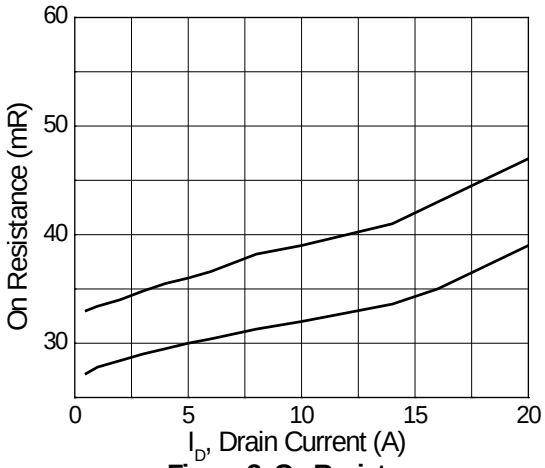


Figure 3. On Resistance

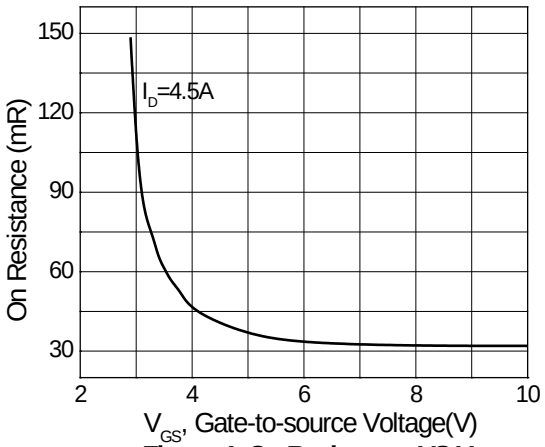


Figure 4. On Resistance VS V_{GS}

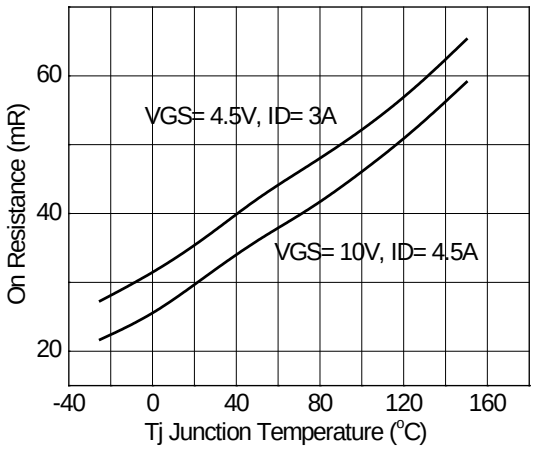


Figure 5 . On resistance vs. Temperature

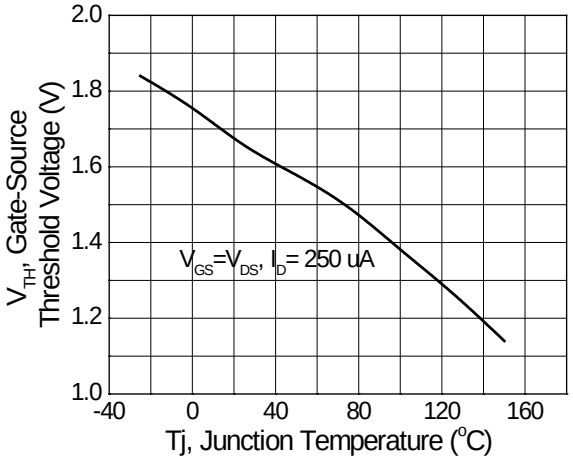


Figure 6. Gate Threshold Vs. Temperature

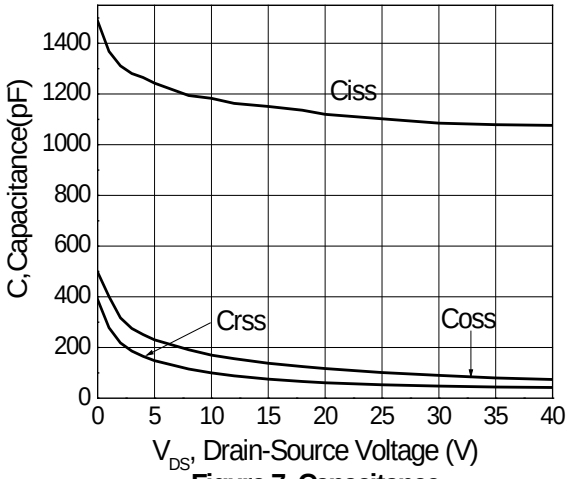


Figure 7. Capacitance

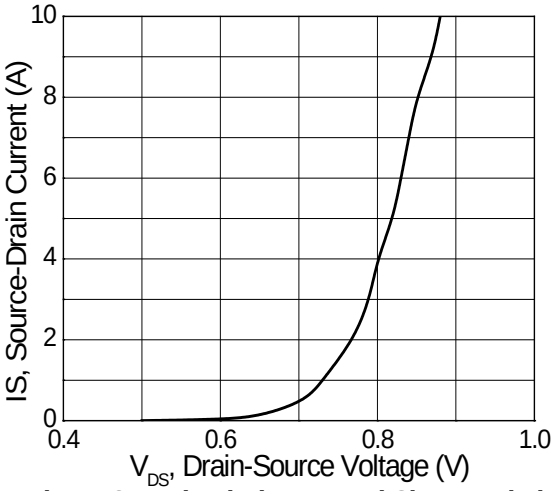


Figure 8. Body Diode Forward Characteristics

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