SSC8036GT8

N-Channel Enhancement Mode MOSFET

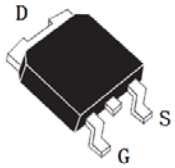
- **Features**

VDS	VGS	RDSon TYP	ID
30V	±20V	24mR@10V	10A
		27mR@4V5	

- **Applications**
  - Load Switch
  - Portable Devices
  - DCDC conversion

- **Pin Configuration**

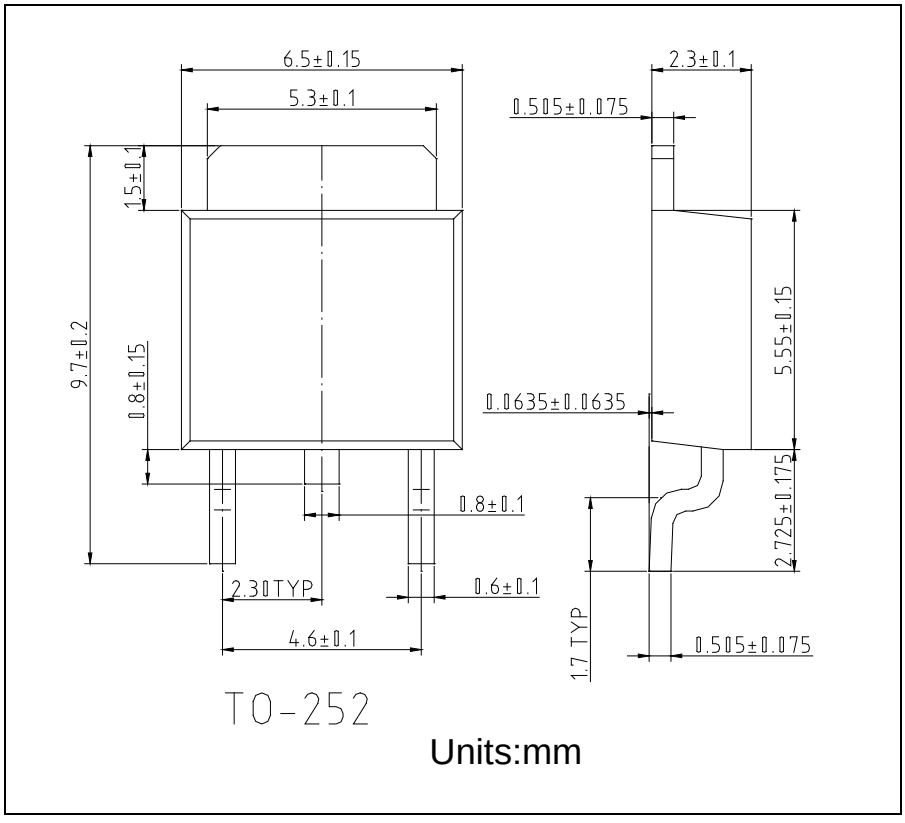
Top View



- **General Description**

This device uses advanced trench technology to provide excellent RDS(ON) and low gate charge. This device is suitable for use as a load switch or in PWM applications.

- **Package Information**



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

Parameter	Symbol	N-channel	Unit
Drain-Source Voltage	V_{DSS}	30	V
Gate-Source Voltage	V_{GSS}	±20	V
Continuous Drain Current (Note 1)	I_D	10	A
Plused Drain Current (Note 2)	I_{DM}	50	A
Total Power Dissipation (Note 1)	P_D	2.5	W
Operating and Storage Junction Temperature Range	T_J, T_{STG}	-55 to +150	°C

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain–Source Breakdown Voltage	$V_{(BR)DSS}$	V_{GS} = 0 V, I_D = 250 μA	30	34	--	V
Gate Threshold Voltage	$V_{GS(TH)}$	V_{DS} = V_{GS}, I_D =250 μA	1	1.5	3	V
Gate–Body Leakage Current	I_{GSS}	V_{GS} = ± 20 V, V_{DS} = 0 V	--	--	±100	nA
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS} = 24 V, V_{GS} = 0 V	--	--	1	μA
Drain–Source On–State Resistance	$R_{DS(ON)}$	V_{GS} = 10 V, I_D = 5.8 A	--	24	28	mR
		V_{GS} = 4.5 V, I_D = 5 A	--	35	42	
Forward Transconductance	G_{FS}	V_{DS} = 5 V, I_D = 5 A	10	15	--	S
Diode Forward Voltage	V_{SD}	V_{GS} = 0 V, I_S = 1 A	--	0.71	1	V
Input Capacitance	C_{ISS}	V_{DS} = 15 V, V_{GS} = 0 V, f = 1.0 MHz	--	697	--	pF
Output Capacitance	C_{OSS}		--	259	--	
Reverse Transfer Capacitance	C_{RSS}		--	308	--	
Turn–On Delay Time	$T_{D(ON)}$	V_{DS} = 15 V, R_L = 2.3Ω, V_{GS} = 10V, R_{GEN}=3Ω	--	--	18	ns
Turn–Off Delay Tim	$T_{D(OFF)}$		--	--	70	

Note :

1. DUT is mounted on a 1in ^{2} FR-4 board with 2oz. Copper in a still air environment at 25°C， the current rating is based on the DC（<10s） test conditions.
2. Repetitive rating, pulse width limited by junction temperature.

3. **Typical Performance Characteristics**

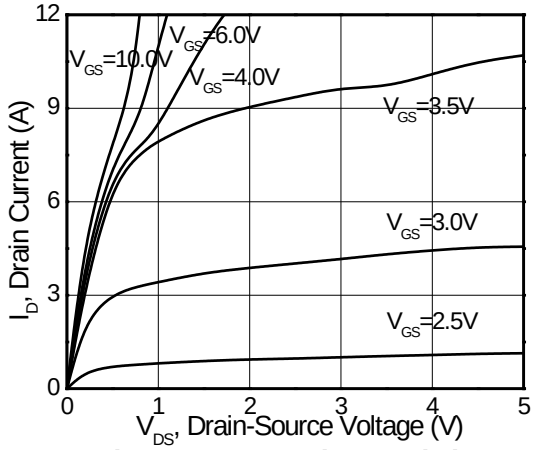


Figure 1. Output Characteristics

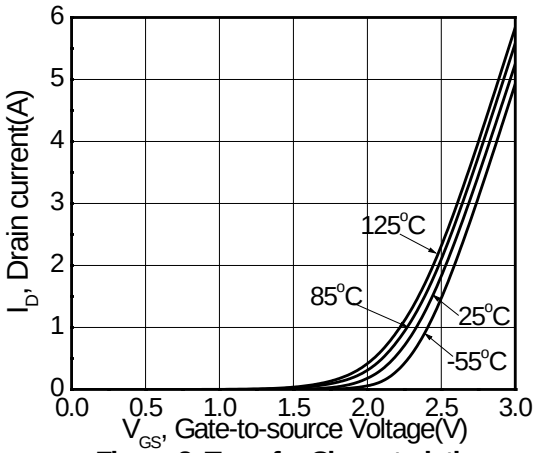


Figure 2. Transfer Characteristics

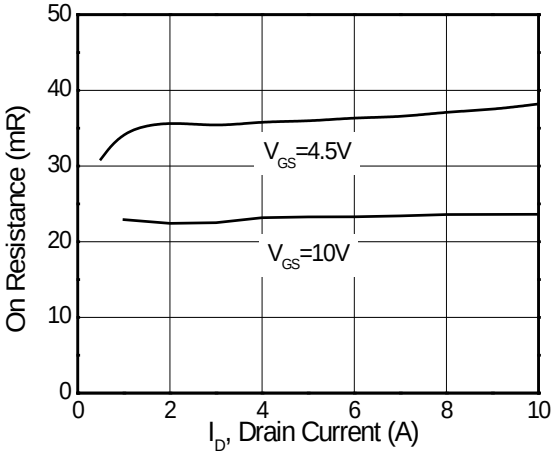


Figure 3. On Resistance vs. Drain Current

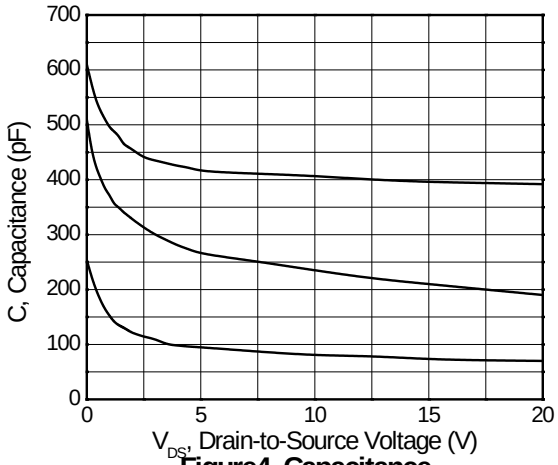


Figure4. Capacitance

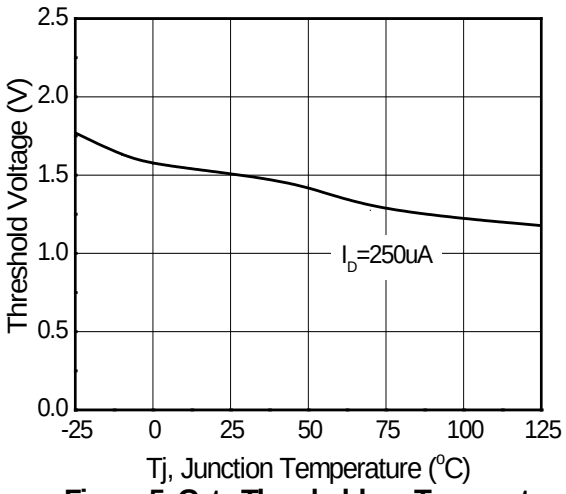


Figure 5. Gate Threshold vs. Temperature

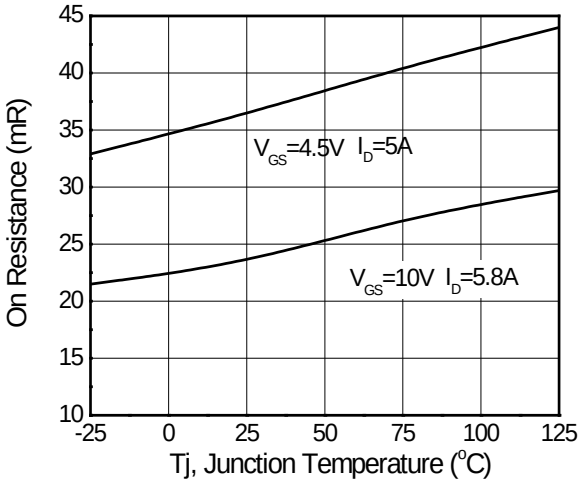


Figure 6. On Resistance vs. Temperature

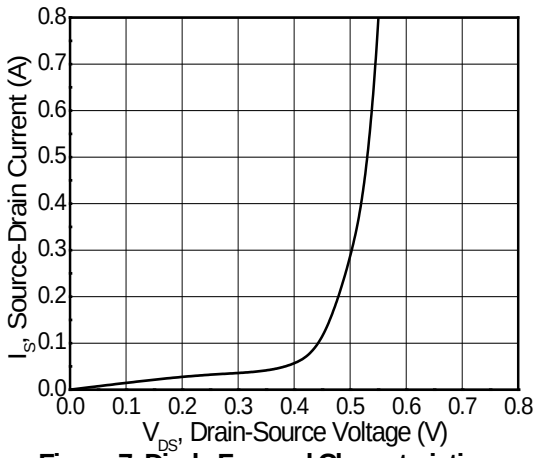


Figure 7. Diode Forward Characteristics

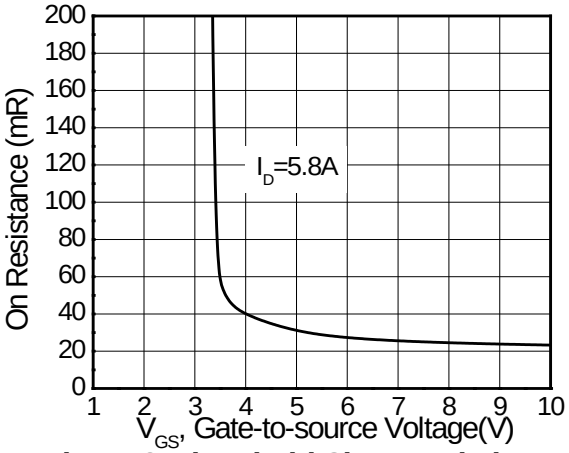


Figure 8. Threshold Characteristics

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