SSC8128GT8

N-Channel Enhancement Mode MOSFET

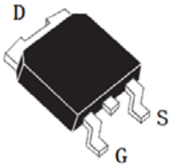
- **Features**

VDS	VGS	RDSon TYP	ID
25V	±20V	4.8mR@10V	80A
		6mR@4V5	

- **Applications**
  - Desktop Computer
  - Notebook

- **Pin Configuration**

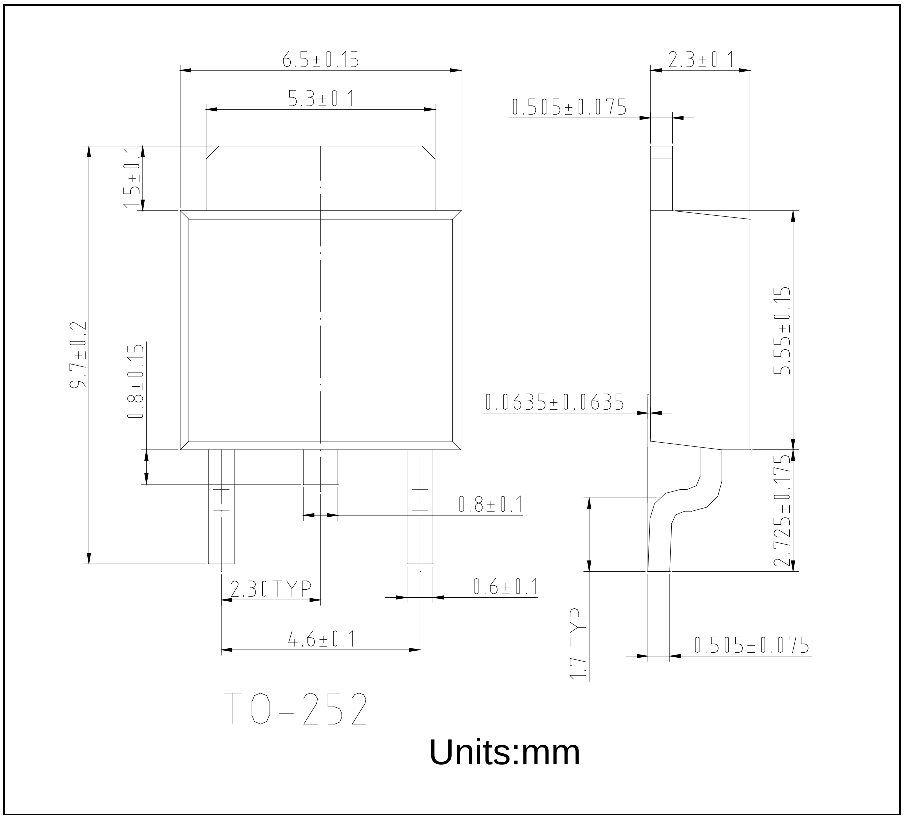
Top View



- **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 noted

Parameter		Symbol	Ratings	Unit
Drain-Source Voltage		V_{DSS}	25	V
Gate-Source Voltage		V_{GSS}	±20	V
Drain Current	Continuous	I_D	80	A
	Pulsed		200	
Power Dissipation⁽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 noted

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain–Source Breakdown Voltage	$V_{(BR)DSS}$	V_{GS} = 0 V, I_D = 250 uA	25	27	--	V
Gate Threshold Voltage	$V_{GS(TH)}$	V_{DS} = V_{GS}, I_D =250 uA	1.3	1.8	3.0	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	uA
Drain–Source On–State Resistance	$R_{DS(ON)}$	V_{GS} = 10 V, I_D = 30A	--	4.8	6.0	mR
		V_{GS} = 4.5 V, I_D = 30A	--	6.0	9.0	
Forward Transconductance	G_{FS}	V_{DS} = 5 V, I_D = 5 A	--	7.3	--	S
Diode Forward Voltage	V_{SD}	V_{GS} = 0 V, I_S = 10 A	--	0.86	1.3	V
Input Capacitance	C_{ISS}	V_{DS} = 15 V, V_{GS} = 0 V, f = 1.0 MHz	--	2650	--	pF
Output Capacitance	C_{OSS}		--	910	--	
Reverse Transfer Capacitance	C_{RSS}		--	774	--	
Turn–On Delay Time	$T_{D(ON)}$	V_{DS} = 15 V, R_L = 15R, I_{DS} = 1A, V_{GS} = 10V, R_{GEN}=6R	--	18		nS
Turn–Off Delay Tim	$T_{D(OFF)}$		--	61		

Notes:

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. 300us Pulse Drain Current Tested.
3. Current limited by bond wire.

- **Typical Performance Characteristics**

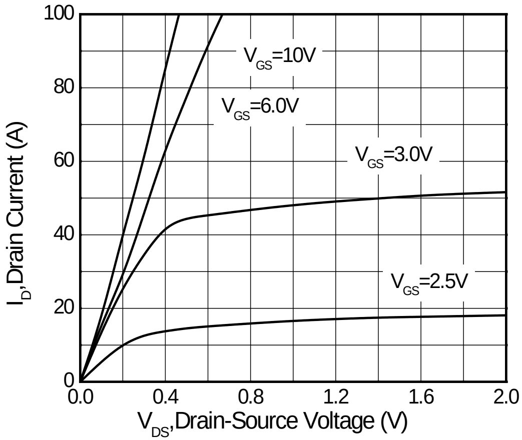


Fig1.Drain-Source Voltage vs. Drain Current

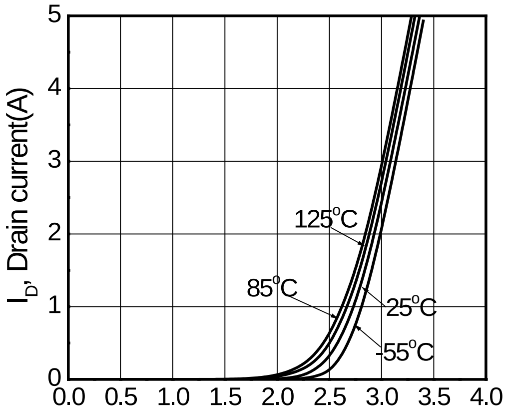


Fig2. Transfer Characteristics

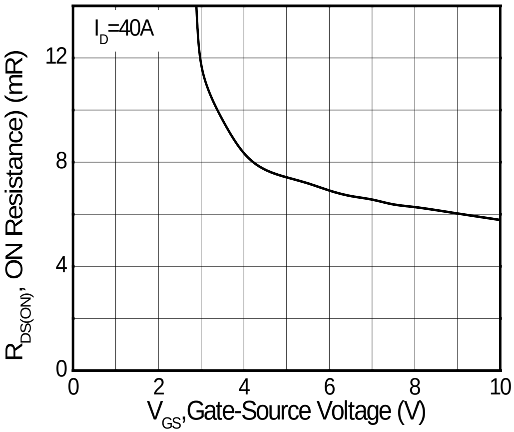


Fig3.Gate-Source Voltage vs. On-Resistance

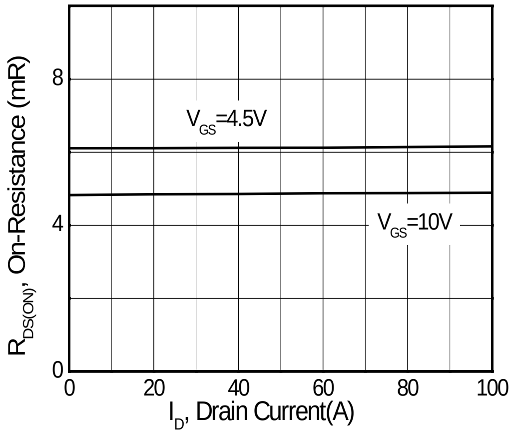


Fig4. Drain Current vs. On-Resistance

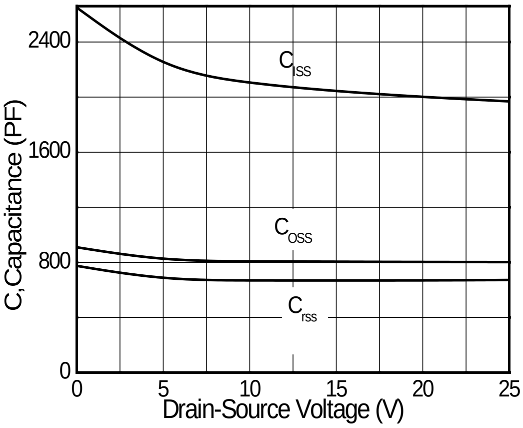


Fig5.Drain-Source Voltage vs. Capacitance

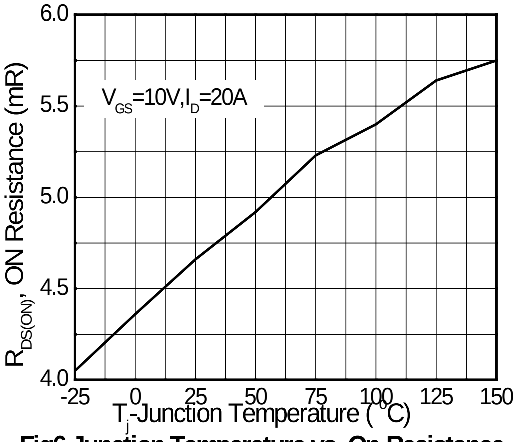


Fig6.Junction Temperature vs. On-Resistance

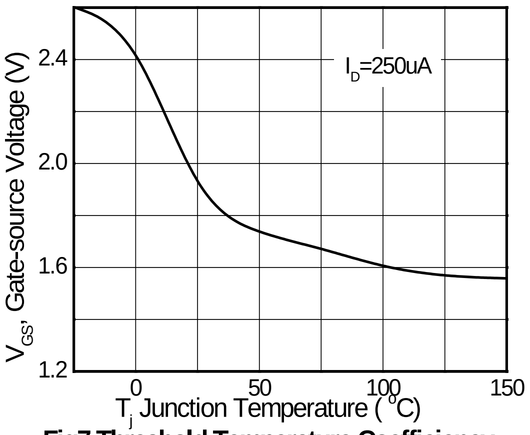


Fig7.Threshold Temperature Coefficiency

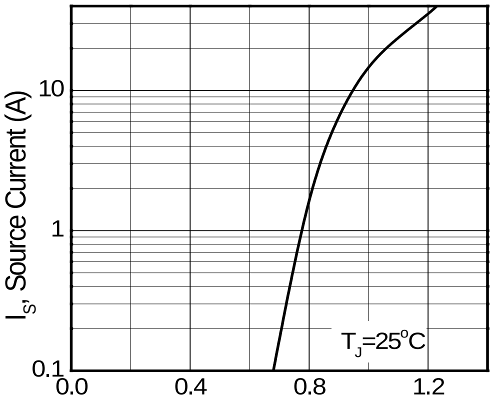


Fig8.Diode Forward Characteristics

DISCLAIMER