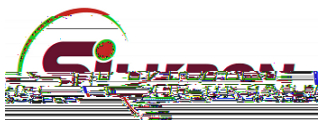


**SSF3108J2**

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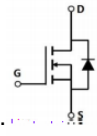
### Thermal Resistance

Symbol	Characterizes	Typ.	Max.	Units
R	Thermal Resistance, Junction-to-Ambient		35	/W

### Electrical Characterizes @ $T_A=25$ unless otherwise specified

Symbol	Parameter	Min.	Typ.	Max.	Units	Conditions
$V_{(BR)DSS}$	Drain-to-Source breakdown voltage	30			V	$V_{GS} = 0V, I_D$
$R_{DS(on)}$	Static Drain-to-Source on-resistance		5.8	8		$V_{GS}=10V, I_D=15A$
			9.6	14		$V_{GS}=4.5V, I_D=10A$
$V_{GS(th)}$	Gate threshold voltage	1		2.5	V	$V_{DS} = V_{GS}, I_D = 250 A$
$I_{DSS}$	Drain-to-Source leakage current			1		$V_{DS} = 30V, V_{GS} = 0V$
$I_{GSS}$	Gate-to-Source forward leakage			100	nA	$V_{GS} = 20V$
				-100		$V_{GS} = -20V$
$Q_g$	Total gate charge		12.8		nC	$I_D = 15A,$ $V_{DD}=15V,$ $V_{GS} = 10V$
$Q_{gs}$	Gate-to-Source charge		2.8			
$Q_{gd}$	Gate-to-Drain("Miller") charge		3.8			
$t_{d(on)}$	Turn-on delay time		8.2		nS	$V_{GS}=10V,$ $V_{DS}=22V,$ $I_D = 10A,$ $R_{GEN}=2.2$
$t_r$	Rise time		19.2			
$t_{d(off)}$	Turn-Off delay time		23			
$t_f$	Fall time		5.6			
$C_{iss}$	Input capacitance		972		pF	$V_{GS} = 0V$ $V_{DS} = 30V$
$C_{oss}$	Output capacitance		141			
$C_{rss}$	Reverse transfer capacitance		7.8			

### Source-Drain Ratings and Characteristics

Symbol	Parameter	Min.	Typ.	Max.	Units	Conditions
$I_S$	Continuous Source Current (Body Diode)			18	A	MOSFET symbol showing the integral reverse p-n junction diode. 
$I_{SM}$	Pulsed Source Current (Body Diode)			54	A	
$V_{SD}$	Diode Forward Voltage		0.87	1.2	V	$I_S=15A, V_{GS}=0V$
$t_{rr}$	Reverse Recovery Time		30		nS	$T_J = 25^\circ C, I_F = 15A,$
$Q_{rr}$	Reverse Recovery Charge		90		nC	



Typical Electrical and Thermal Characteristics

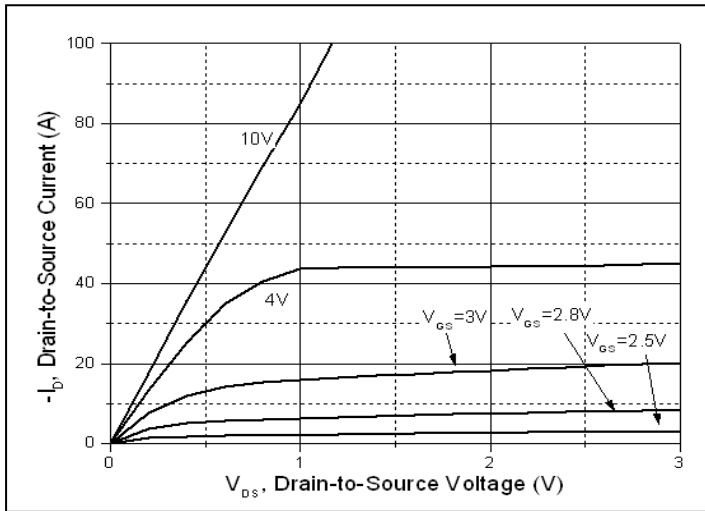


Figure1. Typical Output Characteristics

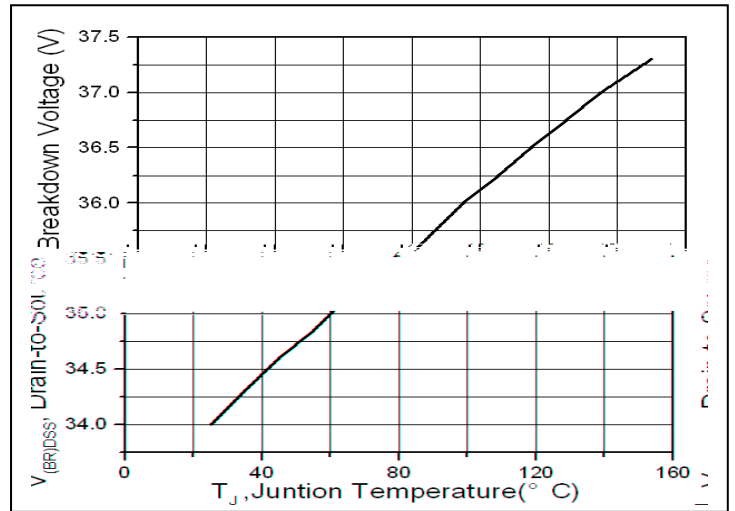


Figure2. Drain-to-Source Breakdown Voltage vs. Junction Temperature

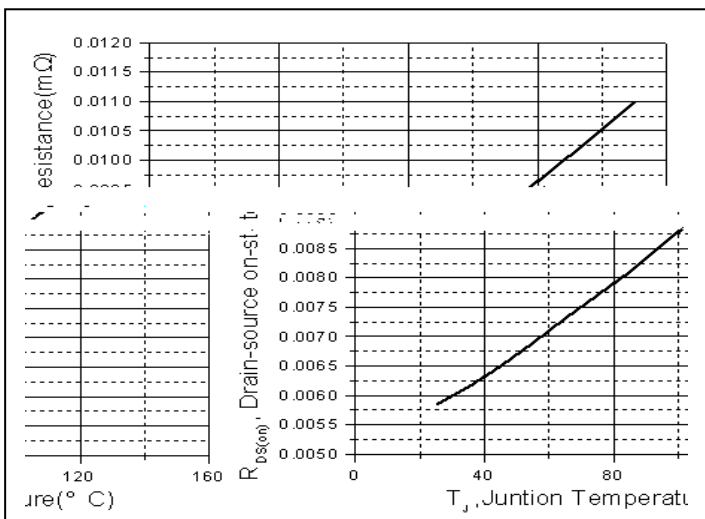


Figure3. Normalized On-Resistance vs. Junction Temperature

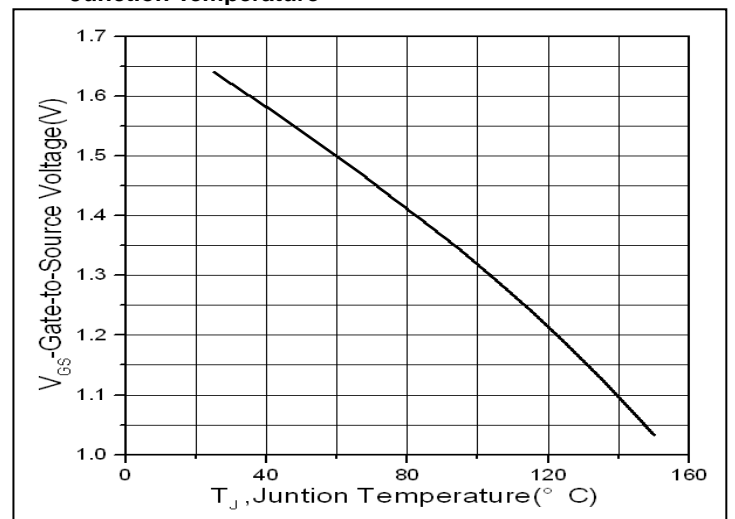


Figure 4. Normalized  $V_{GS(th)}$  vs. Junction Temperature

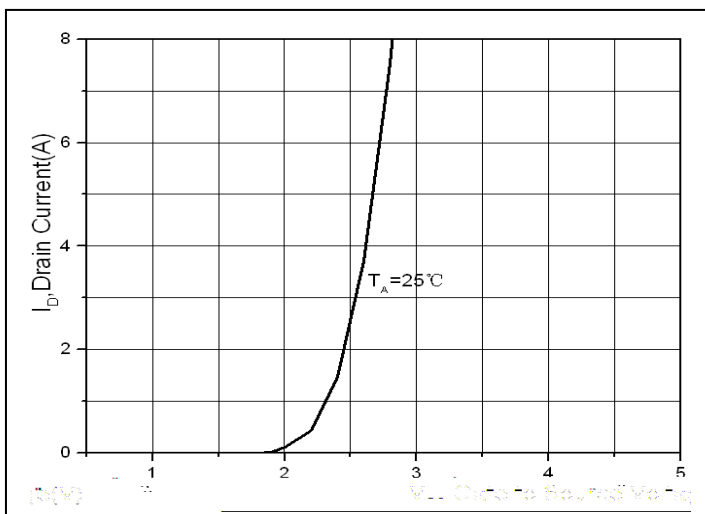


Figure5. Transfer Characteristics

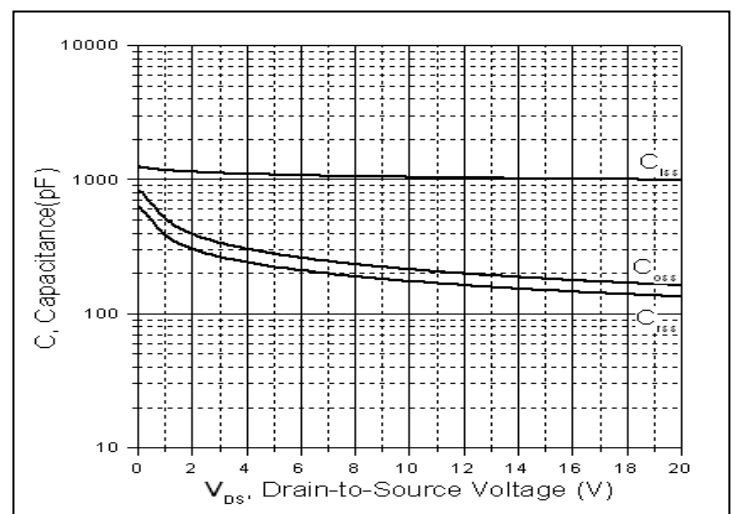


Figure6. Capacitance

Typical Electrical and Thermal Characteristics

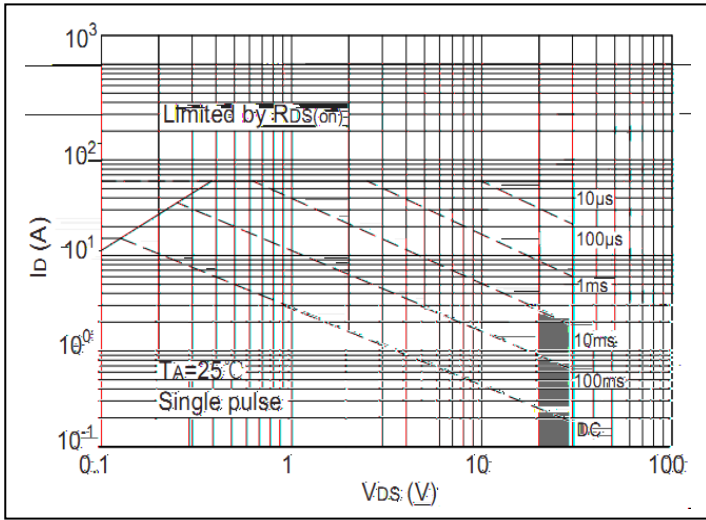


Figure 7. Safe Operation Area

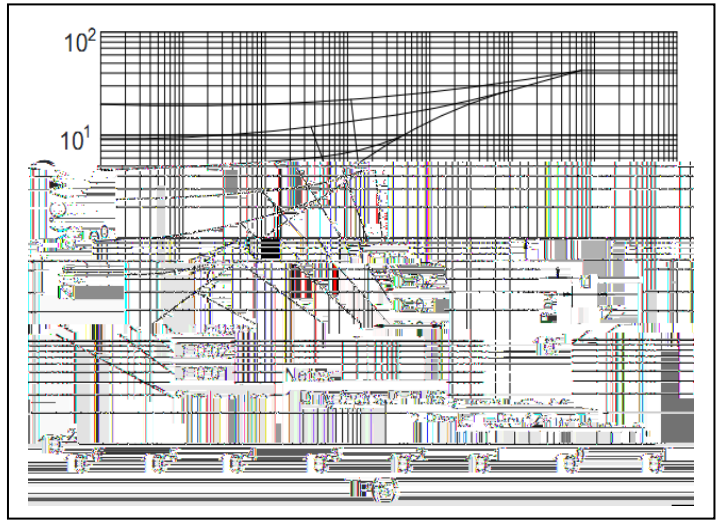
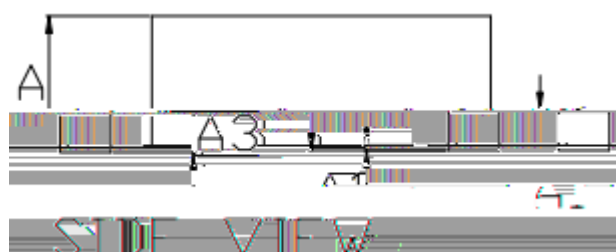
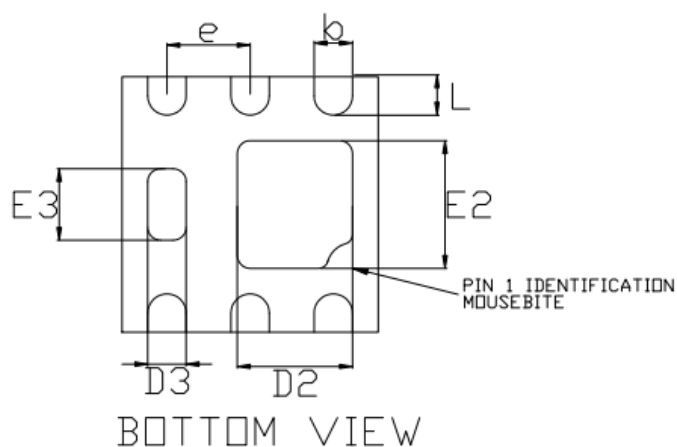
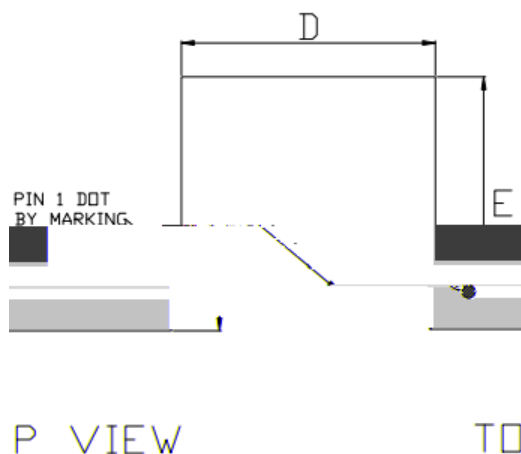


Figure 8. Transient Thermal Impedance

**Mechanical Data**
**DFN 2 x 2-6L PACKAGE INFORMATION**


COMMON DIMENSIONS(MM)			
PKG.	W:VERY VERY THIN		
REF.	MIN.	NOM.	MAX
A	0.70	0.75	0.80
A1	0.00	-	0.05
A3	0.20 REF.		
D	1.95	2.00	2.05
F	1.95	2.00	2.05
D2	0.85	0.90	0.95
E2	0.95	1.00	1.05
D3	0.25	0.30	0.35
E3	0.51	0.56	0.61
b	0.25	0.30	0.35
L	0.25	0.30	0.35
e	0.65 BSC		

**Notes:**

Does not fully conform to JEDEC registration MO-229 dated Aug/2003.

Dimensions are in millimeters.

Dimensions and tolerances per ASME Y14.5M. 1994.

