

(OHFWULFD O & KDUDFXWHULRWKILFZV VHVSHFLILHG

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
BV _{DSS}	Drain- Source Breakdown Voltage	V _{GS} =0V , I _D =-250uA	-30	---	---	V
ΔBV _{DSS} /ΔT _J	BV _{DSS} Temperature Coefficient	Reference to 25C , I _D =- 1mA	---	-0.022	---	V/ C
R _{DS(ON)}	Static Drain- Source On-Resistance ²	V _{GS} =- 10V , I _D =-6A	---	18	24	mΩ
		V _{GS} =-4.5V , I _D =-4A	---	25	37	
V _{GS(th)}	Gate Threshold Voltage	V _{GS} =V _{DS} , I _D =-250uA	-1.0	-1.7	-2.5	V
ΔV _{GS(th)}	V _{GS(th)} Temperature Coefficient		---	4.6	---	mV/ C
I _{DSS}	Drain- Source Leakage Current	V _{DS} =-24V , V _{GS} =0V , T _J =25C	---	---	-1	uA
		V _{DS} =-24V , V _{GS} =0V , T _J =55C	---	---	-5	
I _{GSS}	Gate- Source Leakage Current	V _{GS} = ± 20V , V _{DS} =0V	---	---	±100	nA
g _{fs}	Forward Transconductance	V _{DS} =-5V , I _D =-6A	---	17	---	S
R _g	Gate Resistance	V _{DS} =0V , V _{GS} =0V , f=1MHz	---	13	---	Ω
Q _g	Total Gate Charge (-4.5V)	V _{DS} =- 15V , V _{GS} =-4.5V , I _D =-6A	---	12.6	---	nC
Q _{gs}	Gate- Source Charge		---	4.8	---	
Q _{gd}	Gate- Drain Charge		---	4.8	---	
T _{d(on)}	Turn-On Delay Time	V _{DD} =- 15V , V _{GS} =- 10V , R _G =3.3Ω , I _D =-6A	---	4.6	---	ns
T _r	Rise Time		---	14.8	---	
T _{d(off)}	Turn-Off Delay Time		---	41	---	
T _f	Fall Time		---	19.6	---	
C _{iss}	Input Capacitance	V _{DS} =- 15V , V _{GS} =0V , f=1MHz	---	1345	---	PF
C _{oss}	Output Capacitance		---	194	---	
C _{rss}	Reverse Transfer Capacitance		---	158	---	

Diode Characteristics

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
I _S	Continuous Source Current ^{1,5}	V _G =V _D =0V , Force Current	---	---	-9.0	A
I _{SM}	Pulsed Source Current ^{2,5}		---	---	-26	A
V _{SD}	Diode Forward Voltage ²	V _{GS} =0V , I _S =- 1A , T _J =25C	---	---	-1.2	V
t _{rr}	Reverse Recovery Time	I _F =-6A , di/dt=100A/μs , T _J =25C	---	16.3	---	ns
Q _{rr}	Reverse Recovery Charge		---	5.9	---	nC

Note :

1. The data tested by surface mounted on a 1 inch² FR-4 board with 2OZ copper.
2. The data tested by pulsed , pulse width ≤ 300 us , duty cycle ≤ 2%
3. The EAS data shows Max. rating . The test condition is V_{DD}=-25V, V_{GS}=- 10V, L=0. 1mH, I_{AS}=-38A
4. The power dissipation is limited by 150C junction temperature
5. The data is theoretically the same as I_D and I_{DM} , in real applications , should be limited by total power dissipation.

Typical Performance Characteristics

Figure 1 : Output Characteristics

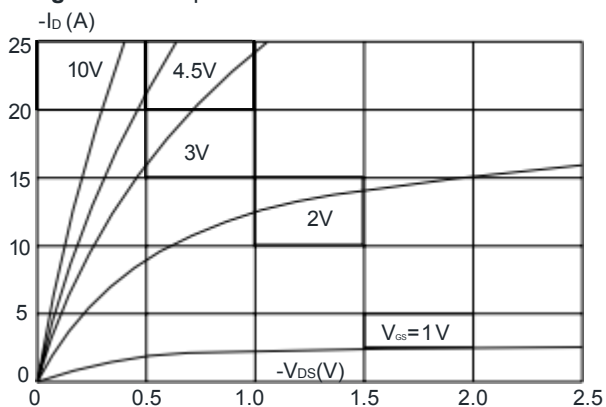


Figure 2 : Typical Transfer Characteristics

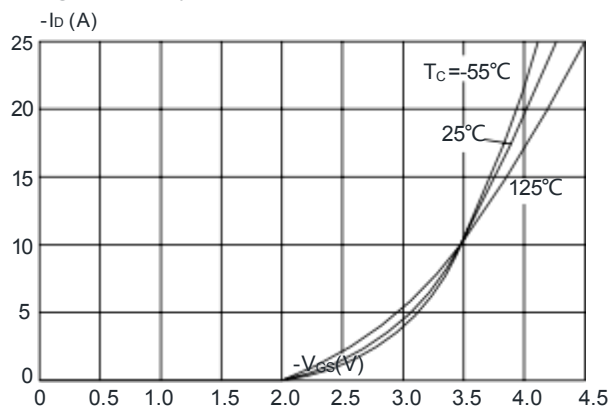


Figure 3 : On-resistance vs. Drain Current

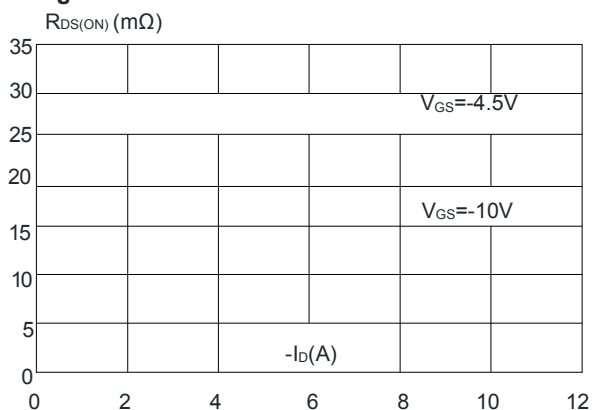


Figure 4 : Body Diode Characteristics

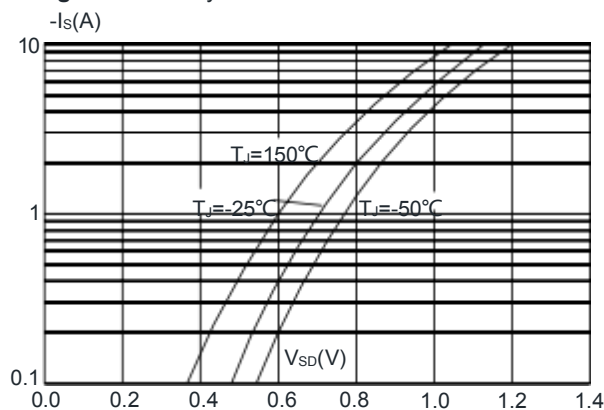


Figure 5 : Gate Charge Characteristics

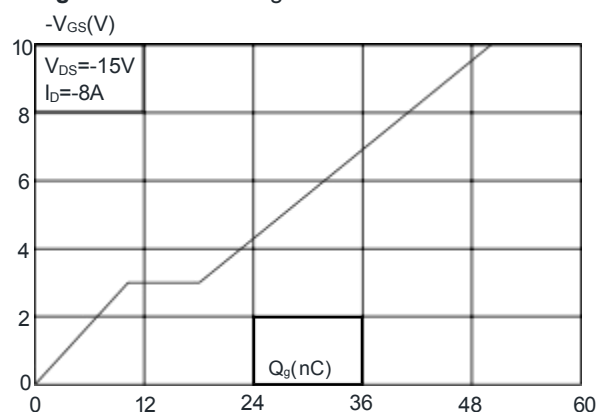


Figure 6 : Capacitance Characteristics

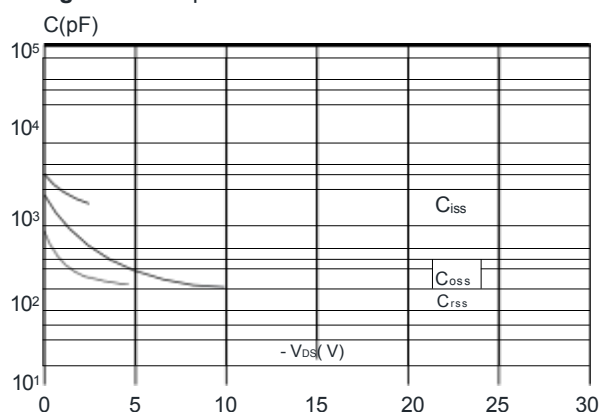


Figure 7: Normalized Breakdown Voltage vs. Junction Temperature

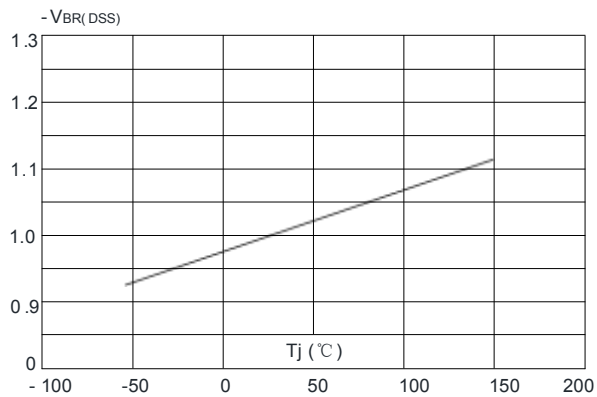


Figure 8: Normalized on Resistance vs. Junction Temperature

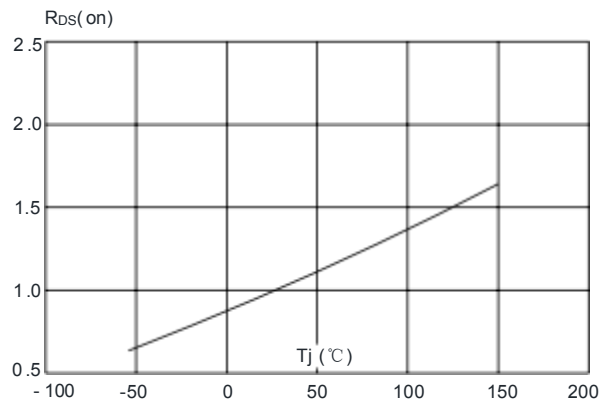


Figure 9: Maximum Safe Operating Area

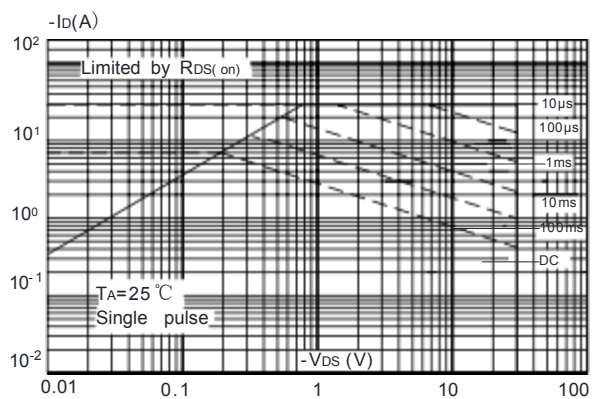
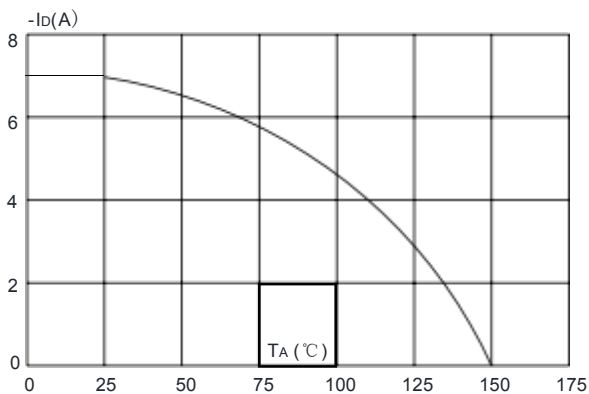
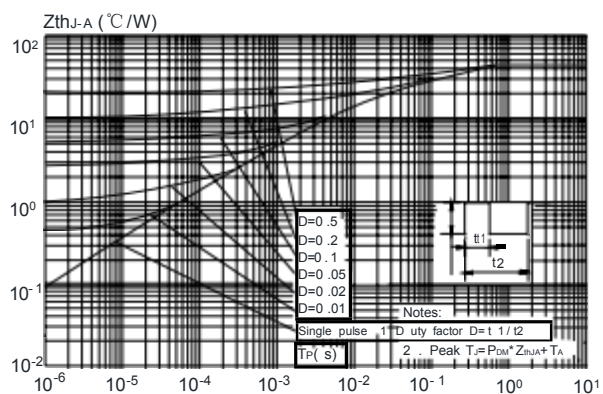


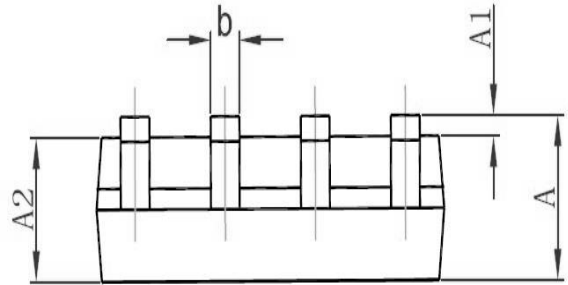
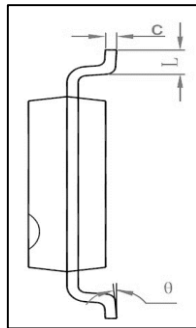
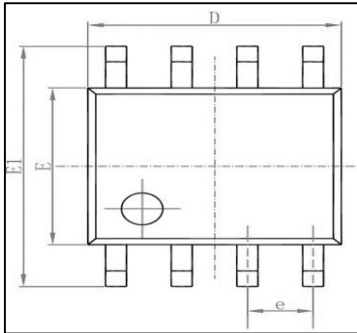
Figure 10: Maximum Continuous Drain Current vs. Ambient Temperature



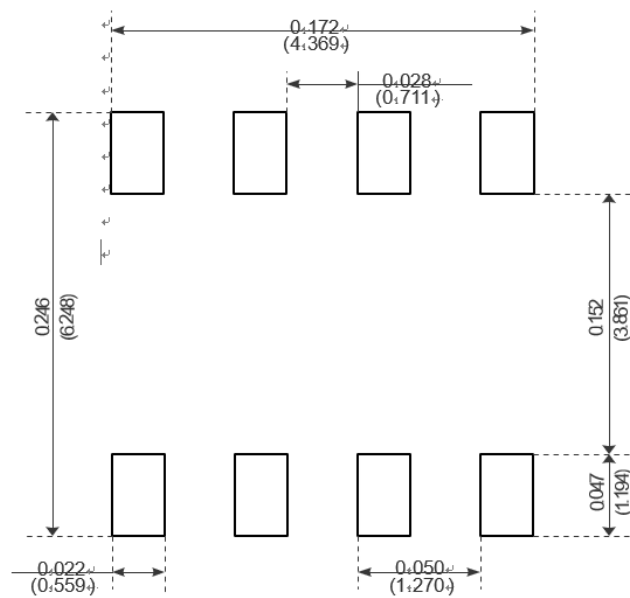
Maximum Effective Transient Thermal Impedance, Junction-to-Ambient



Package Mechanical Data:SOP-8L



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.350	1.750	0.053	0.069
A1	0.100	0.250	0.004	0.010
A2	1.350	1.550	0.053	0.061
b	0.330	0.510	0.013	0.020
c	0.170	0.250	0.006	0.010
D	4.700	5.100	0.185	0.200
E	3.800	4.000	0.150	0.157
E1	5.800	6.200	0.228	0.244
e	1.270 (BSC)		0.050 (BSC)	
L	0.400	1.270	0.016	0.050
θ	0°	8°	0°	8°



Recommended Minimum Pads