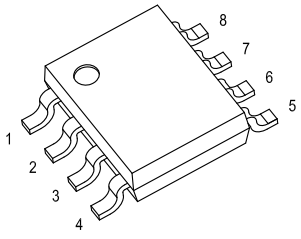
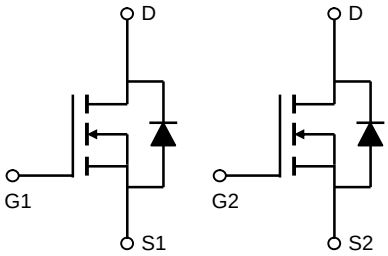
$V_{(BR)DSS}$	$R_{DS(on)}$ MAX	I_D
60V	32mΩ@10V	7.6A
	46mΩ@4.5V	

SOP8



Equivalent Circuit



Maximum ratings (T_a=25℃ unless otherwise noted)

Parameter	Symbol	Value	Units
Drain-Source Voltage	V_{DS}	60	V
Gate-Source Voltage	V_{GS}	±20	V
Continuous Drain Current (t ≤10s) (note 1)	I_D	7.6	A
Pulsed Drain Current (note 2)	I_{DM}	28	A
Power Dissipation	P_D	1.25	W
Thermal Resistance from Junction to Ambient (t ≤10s) (note 1)	$R_{\theta JA}$	100	℃/W
Avalanche Current (note 2)	I_{AR},I_{AS}	25	A
Repetitive Avalenche Energy 0.1mH (note 2)	E_{AR},E_{AS}	21	mJ
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55~ 150	℃

MOSFET ELECTRICAL CHARACTERISTICS

T_a=25℃ unless otherwise specified

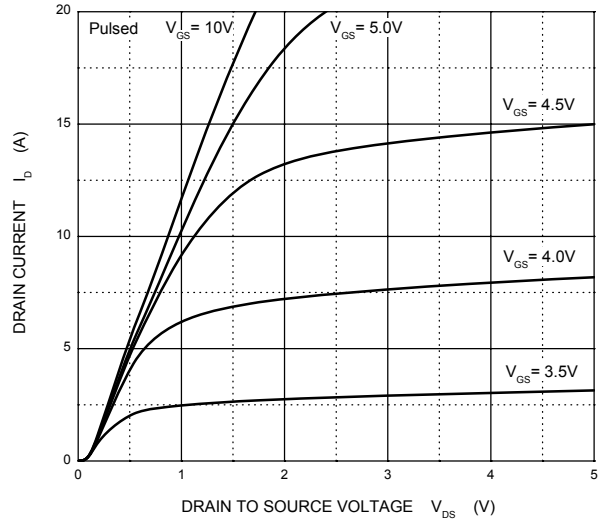
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
STATIC PARAMETERS						
Drain-source breakdown voltage	$V_{(BR)DSS}$	V_{GS} = 0V, I_D =250μA	60			V
Zero gate voltage drain current	I_{DSS}	V_{DS} =60V,V_{GS} = 0V			1	μA
Gate-body leakage current	I_{GSS}	V_{GS} =±20V, V_{DS} = 0V			±100	nA
Gate threshold voltage (note 3)	$V_{GS(th)}$	V_{DS} =V_{GS}, I_D =250μA	1	1.6	2.5	V
Drain-source on-resistance (note 3)	$R_{DS(on)}$	V_{GS} =10V, I_D =7.6A		24	33	mΩ
		V_{GS} =4.5V, I_D =6A		33	46	mΩ
Forward tranconductance (note 3)	g_{FS}	V_{DS} =5V, I_D =7.6A	6			S
Diode forward voltage (note 3)	V_{SD}	I_S=1A, V_{GS} = 0V			1	V
DYNAMIC PARAMETERS (note 4)						
Input Capacitance	C_{iss}	V_{DS} =30V,V_{GS} =0V,f =1MHz			669	pF
Output Capacitance	C_{oss}			82		pF
Reverse Transfer Capacitance	C_{rss}			31		pF
SWITCHING PARAMETERS (note 4)						
Turn-on delay time	$t_{d(on)}$	V_{GS}=10V,V_{DS}=30V, R_L=6.7Ω,R_{GEN}=3Ω		4.7		ns
Turn-on rise time	t_r			2.3		ns
Turn-off delay time	$t_{d(off)}$			15.7		ns
Turn-off fall time	t_f			1.9		ns
Total Gate Charge (10V)	Q_g	V_{DS} =30V,V_{GS} =10V,I_D =7.6A			10.5	nC
Total Gate Charge (4.5V)					5.5	nC
Gate-Source Charge	Q_{gs}			1.6		nC
Gate-Drain Charge	Q_{gd}			2.2		nC

Notes :

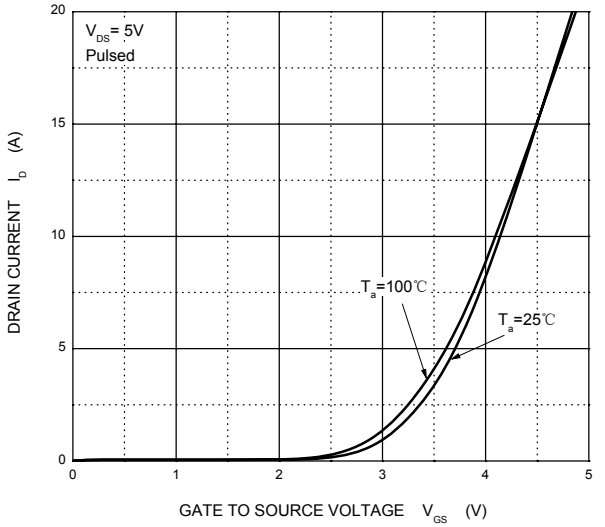
1. The value in any given application depends on the user's specific board design.
2. Repetitive rating : Pulse width limited by junction temperature.
3. Pulse Test : Pulse Width≤300μs, Duty Cycle≤0.5%.
4. These parameters have no way to verify.

Typical Characteristics

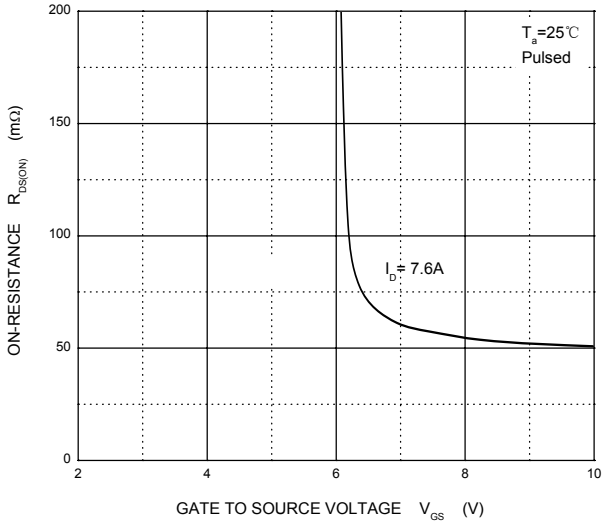
Output Characteristics



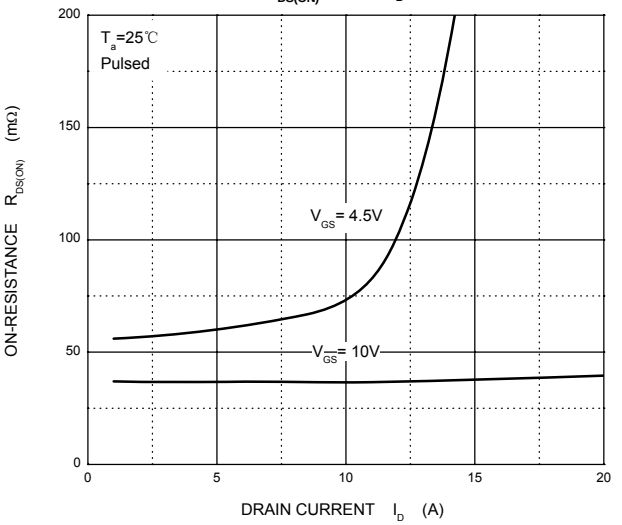
Transfer Characteristics



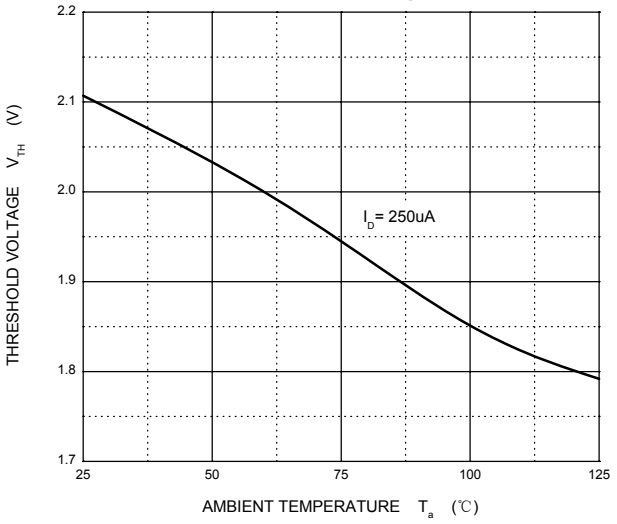
$R_{DS(ON)}$ —— V_{GS}



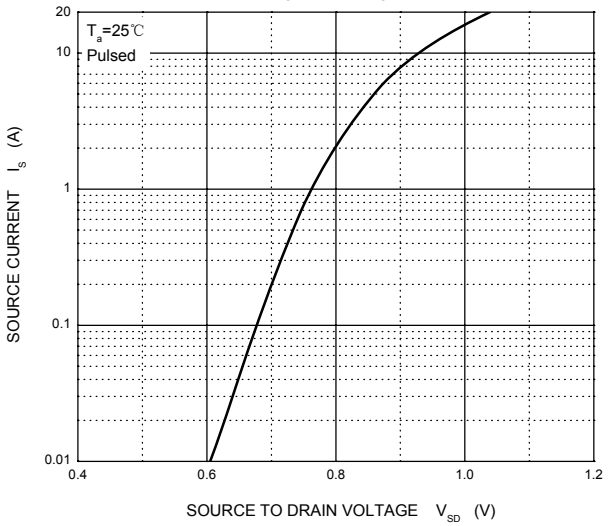
$R_{DS(ON)}$ —— I_D



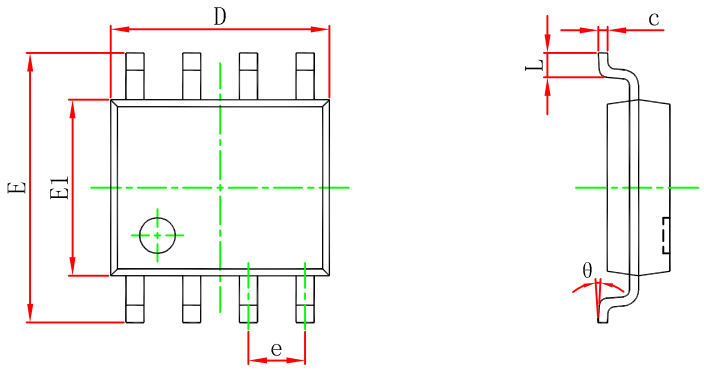
Threshold Voltage

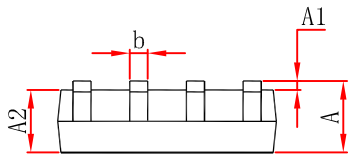


I_S —— V_{SD}



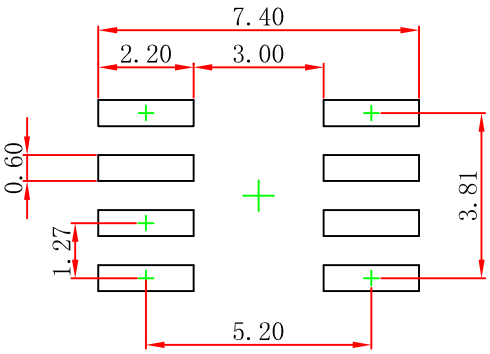
SOP8 Package Outline Dimensions





Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	**Max**	**Min**	**Max**
A	1.450	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	0.007	0.010
D	4.700	5.100	0.185	0.201
e	1.270（BSC）		0.050（BSC）	
E	5.800	6.200	0.228	0.244
E1	3.800	4.000	0.150	0.157
L	0.400	1.270	0.016	0.050
θ	0°	8°	0°	8°

SOP8 Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.