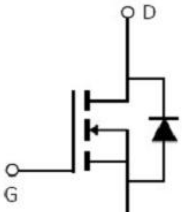
V_{DSS}	150V
R_{DS}(on)	4.4mΩ (typ.)
I_D	150A



Advanced MOSFET process technology
Special designed for PWM, load switching and general purpose applications
Ultra low on-resistance with low gate charge
Fast switching and reverse body recovery
150 operating temperature

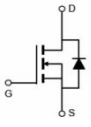
It utilizes the latest processing techniques to achieve the high cell density and reduces the on-resistance with high repetitive avalanche rating. These features combine to make this design an extremely efficient and reliable device for use in power switching application and a wide variety of other applications.

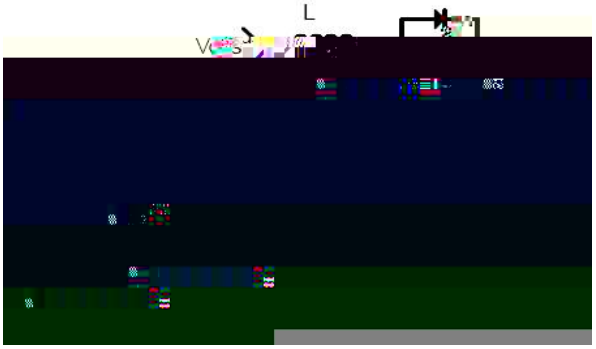
I_D @ T_C = 25°C	Continuous Drain Current, V_{GS} @ 10V	150	A
I_{DM}	Pulsed Drain Current	600	
P_D @T_C = 25°C	Power Dissipation	312	W
V_{DS}	Drain-Source Voltage	150	V
V_{GS}	Gate-to-Source Voltage	± 20	V
E_{AS}	Single Pulse Avalanche Energy @ L=0.5mH	1108	mJ
T_J T_{STG}	Operating Junction and Storage Temperature Range	-55 to +150	°C

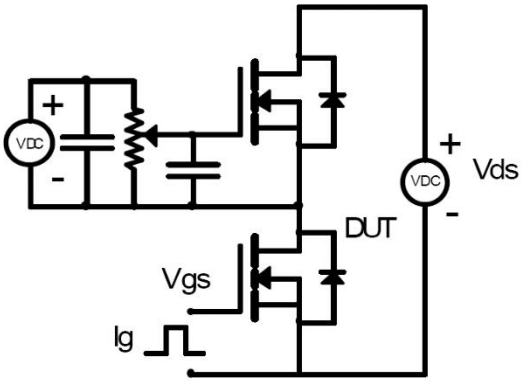
$R_{\theta JC}$	Junction-to-case	—	0.4	/W

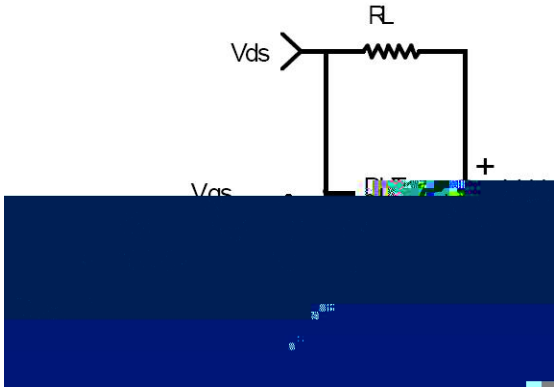
@T_A=25 unless otherwise specified

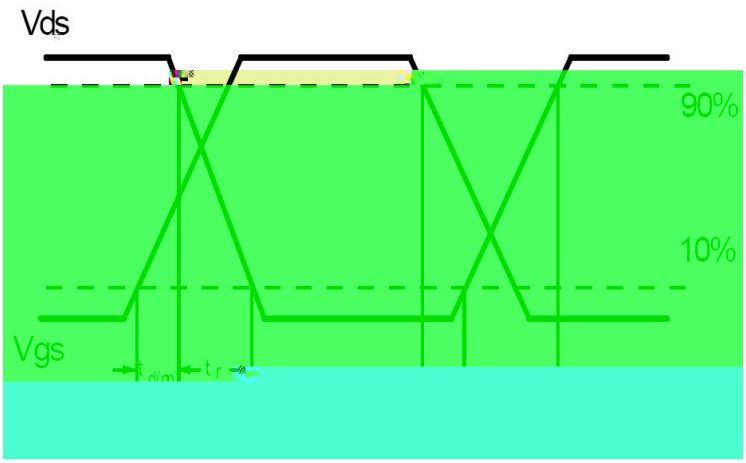
$V_{(BR)DSS}$	Drain-to-Source breakdown voltage	150	—	—	V	V_{GS} = 0V, I_D = 250μA
$R_{DS(on)}$	Static Drain-to-Source on-resistance	—	4.4	6	mΩ	V_{GS}=10V,I_D =30A
$V_{GS(th)}$	Gate threshold voltage	2	—	4	V	V_{DS} = V_{GS}, I_D =250μA
I_{DSS}	Drain-to-Source leakage current	—	—	1	μA	V_{DS} =150V,V_{GS} = 0V
I_{GSS}	Gate-to-Source forward leakage	—	—	100	nA	V_{GS} =20V
		—	—	-100		V_{GS} = -20V
Q_g	Total gate charge	—	80	—	nC	I_D = 20A,
Q_{gs}	Gate-to-Source charge	—	30	—		V_{DS}=75V,
Q_{gd}	Gate-to-Drain("Miller") charge	—	15	—		V_{GS} = 10V
$t_{d(on)}$	Turn-on delay time	—	34	—	ns	V_{GS}=10V,
t_r	Rise time	—	10	—		R_{GEN}=3Ω
$t_{d(off)}$	Turn-Off delay time	—	38	—		R_L=1.07Ω
t_f	Fall time	—	4	—		V_{DS}=75V
C_{iss}	Input capacitance	—	6197	—	pF	V_{GS} = 0V
C_{oss}	Output capacitance	—	560	—		V_{DS} = 100V
C_{rss}	Reverse transfer capacitance	—	20	—		f = 1MHz

I_S	Continuous Source Current (Body Diode)	—	—	150	A	MOSFET symbol showing the integral reverse p-n junction diode. 
I_{SM}	Pulsed Source Current (Body Diode)	—	—	600	A	
V_{SD}	Diode Forward Voltage	—	—	1.2	V	I_S=30A, V_{GS}=0V
trr	Reverse Recovery Time	—	120	—	ns	I_S=15A,di/dt=100A/us
Qrr	Reverse Recovery Charge	—	250	—	nC	

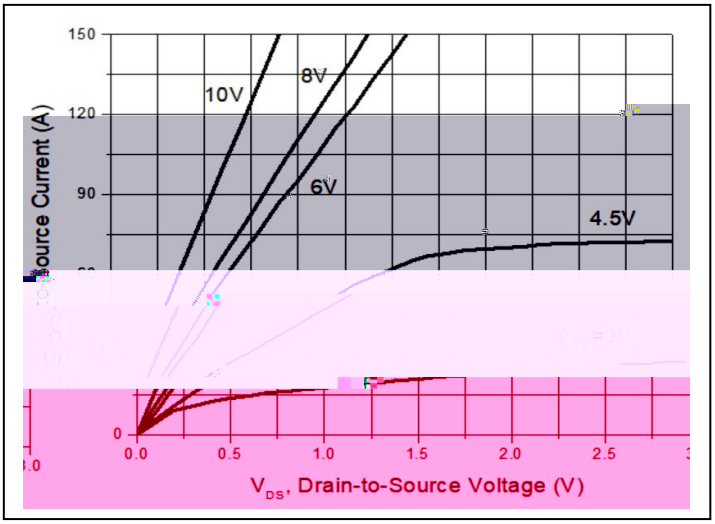


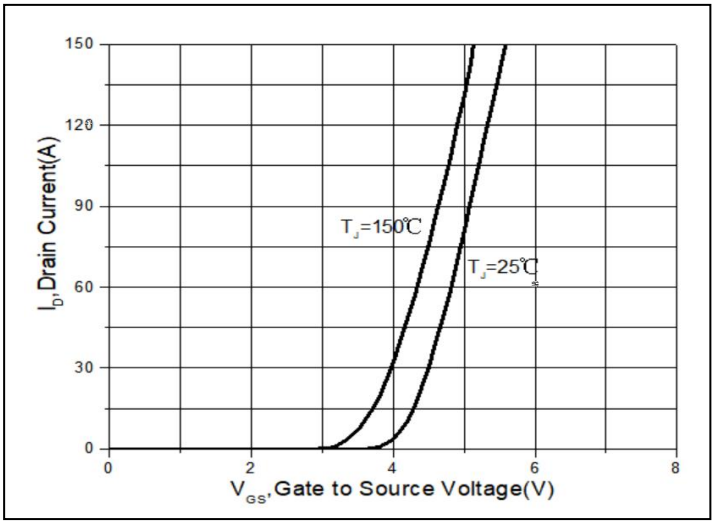


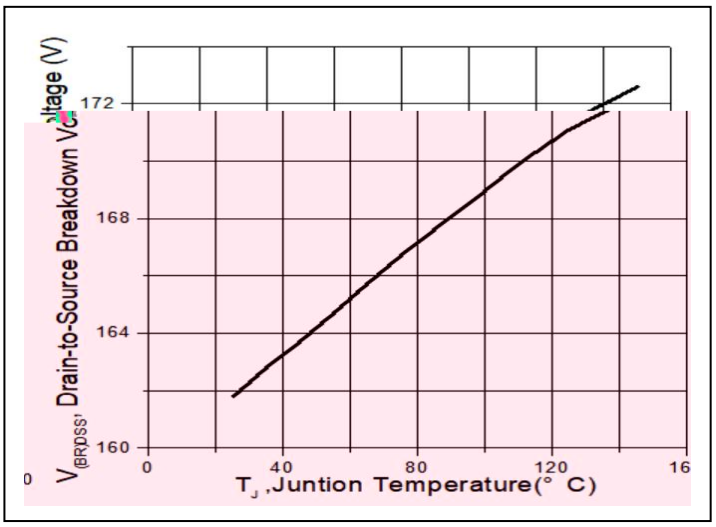


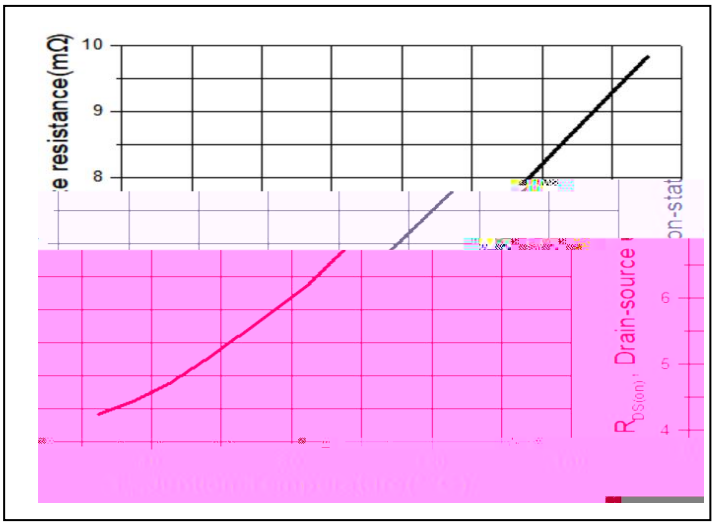


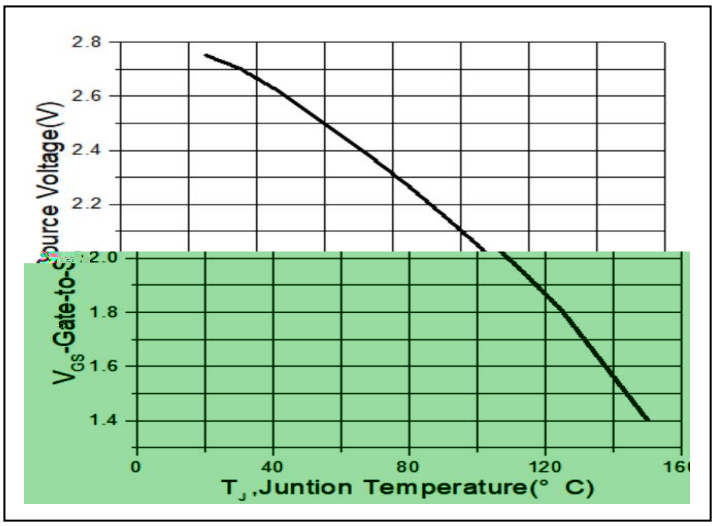
Calculated continuous current based on maximum allowable junction temperature.
Repetitive rating; pulse width limited by max. junction temperature.
The power dissipation P_D is based on max. junction temperature, using junction-to-case thermal resistance.

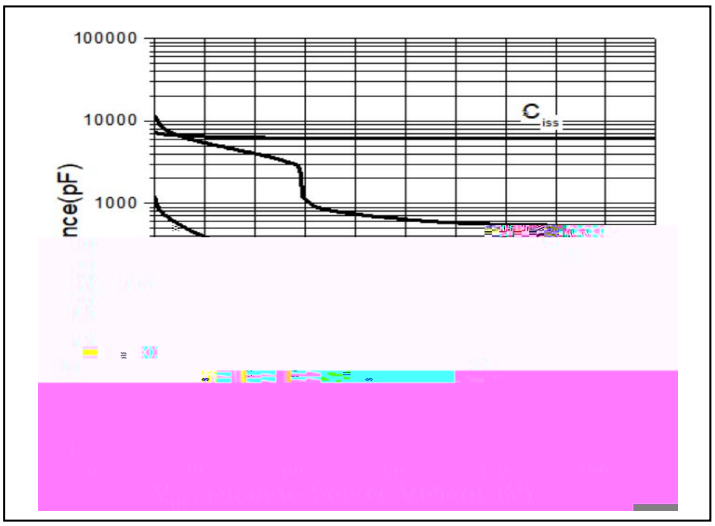

10V
8V
6V
4.5V
150
120
90
0
0.0
0.5
1.0
1.5
2.0
2.5
V_DS, Drain-to-Source Voltage (V)

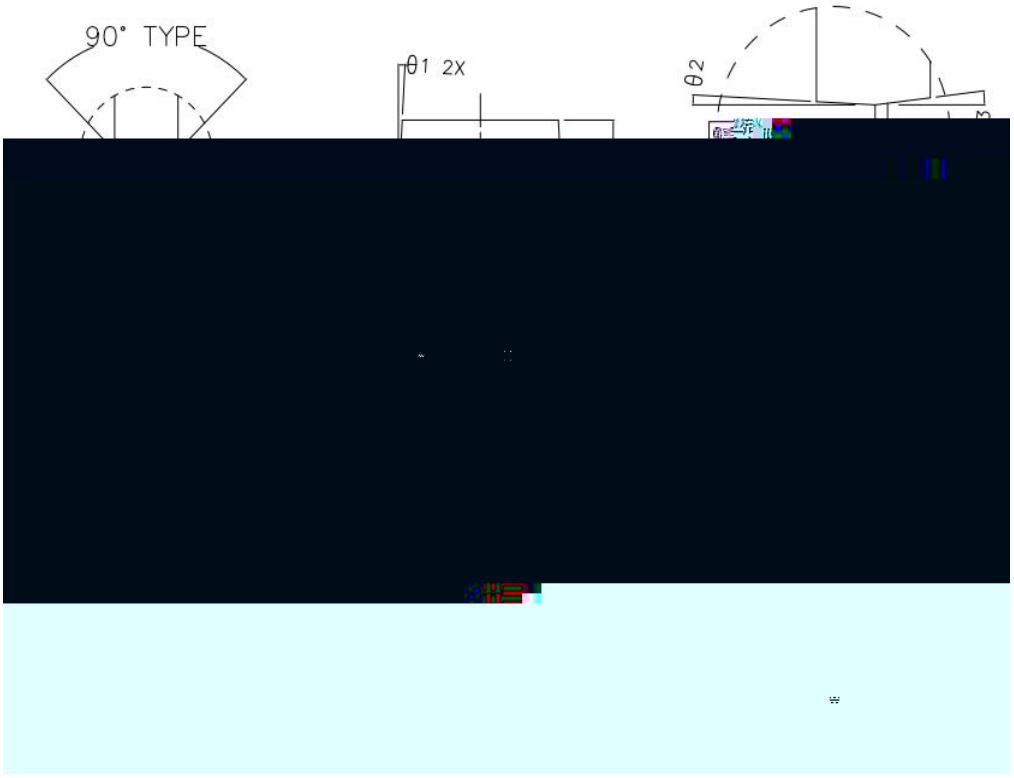

150
120
90
60
30
0
0
2
4
6
8
I_D, Drain Current(A)
T_J=150℃
T_J=25℃
V_GS, Gate to Source Voltage(V)


172
168
164
160
0
40
80
120
T_J ,Juntion Temperature(° C)


10
9
8
T_J ,Juntion Temperature(° C)


2.8
2.6
2.4
2.2
2.0
1.8
1.6
1.4
0
40
80
120
T_J ,Juntion Temperature(° C)


100000
10000
1000
C_iss



COMMON DIMENSIONS (UNITS OF MEASURE IS mm)			
	MIN	NORMAL	MAX
A1	0.020	0.100	0.200
A2	4.470	4.570	4.670
A3	2.30	2.35	2.400
b1	0.750	0.800	0.850
b2	1.220	1.270	1.320
c1	0.450	0.500	0.550
c2	1.250	1.300	1.350
D	9.900	10.000	10.100
▲D1	9.780	9.880	9.980
▲D2	7.900	8.000	8.100
E	14.900	15.100	15.300
▲E1	9.0	9.100	9.200
▲E2	7.600	7.700	7.800
e		2.540TYPE	
L	2.100	2.300	2.500
L2	1.100	1.200	1.300
L3	1.300	1.500	1.700
▲L4		2.50 TYPE	
θ1		3° TYPE	
θ2		3° TYPE	
θ3		7° TYPE	
θ4		7° TYPE	
θ		0 ~ 8°	

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