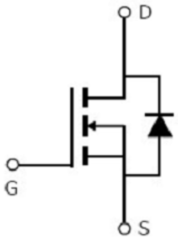
V_{DSS}	100V
R_{DS}(on)	4.2mΩ (typ.)
I_D	140A



-

- 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.

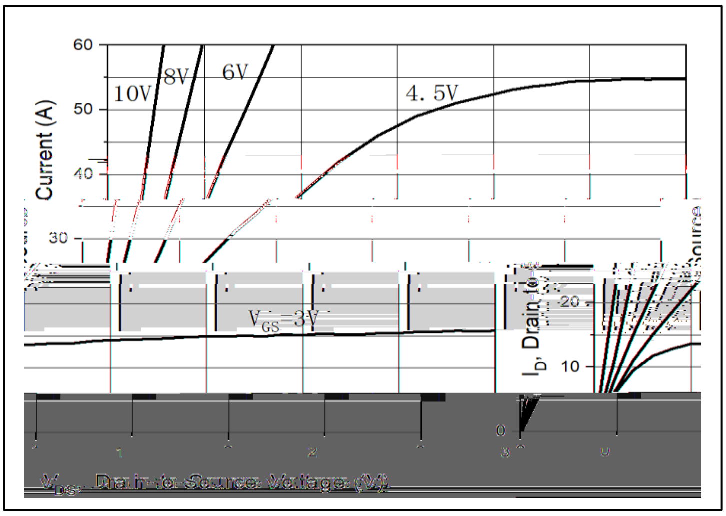
Symbol	**Parameter**	**Max.**	**Units**
I_D @ T_C = 25°C	Continuous Drain Current, V_{GS} @ 10V	140	A
I_D @ T_C = 100°C	Continuous Drain Current, V_{GS} @ 10V	85	
I_{DM}	Pulsed Drain Current	417	
P_D @T_C = 25°C	Power Dissipation	266	W
V_{DS}	Drain-Source Voltage	100	V
V_{GS}	Gate-to-Source Voltage	± 20	V
E_{AS}	Single Pulse Avalanche Energy @ L=0.5mH	473	mJ
I_{AS}	Avalanche Current	52	A
T_J T_{STG}	Operating Junction and Storage Temperature Range	-55 to +150	°C

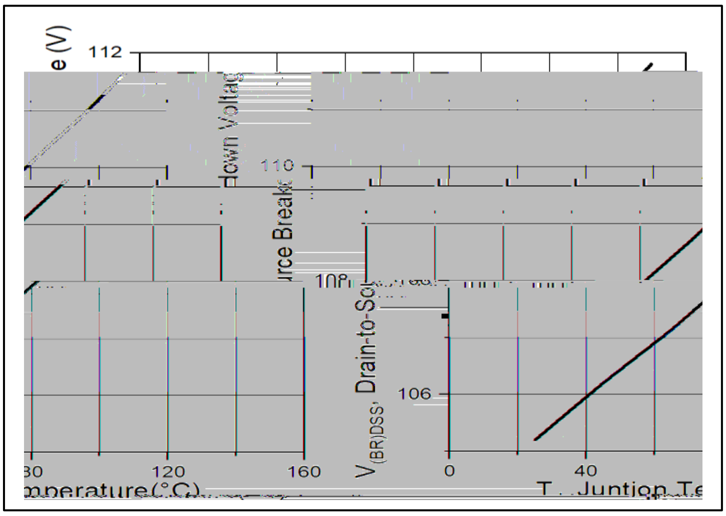
Symbol	Characterizes	Typ.	Max.	Units
$R_{\theta JC}$	Junction-to-case	—	0.47	/W
$R_{\theta JA}$	Thermal Resistance,Junction-to-Ambient	—	62	/W

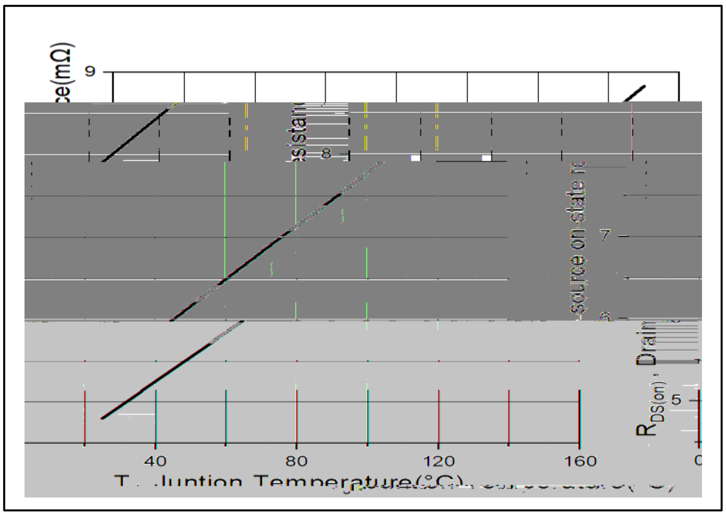
@T_A=25 unless otherwise specified

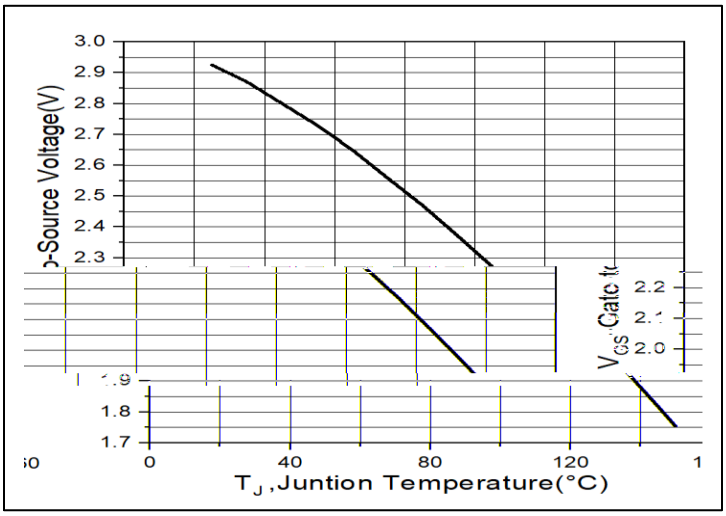
Symbol	Parameter	Min.	Typ.	Max.	Units	Conditions
$V_{(BR)DSS}$	Drain-to-Source breakdown voltage	100	—	—	V	V_{GS} = 0V, I_D = 250μA
$R_{DS(on)}$	Static Drain-to-Source on-resistance	—	4.2	6	mΩ	V_{GS}=10V,I_D =20A
$V_{GS(th)}$	Gate threshold voltage	2	—	4	V	V_{DS} = V_{GS}, I_D =250μA
I_{DSS}	Drain-to-Source leakage current	—	—	1	μA	V_{DS} =100V,V_{GS} = 0V
I_{GSS}	Gate-to-Source forward leakage	—	—	100	nA	V_{GS} =20V
		—	—	-100		V_{GS} = -20V
Q_g	Total gate charge	—	43	—	nC	I_D = 20A,
Q_{gs}	Gate-to-Source charge	—	9.5	—		V_{DS}=50V,
Q_{gd}	Gate-to-Drain("Miller") charge	—	11			V_{GS} = 10V

Typical Electrical and Thermal Characteristics









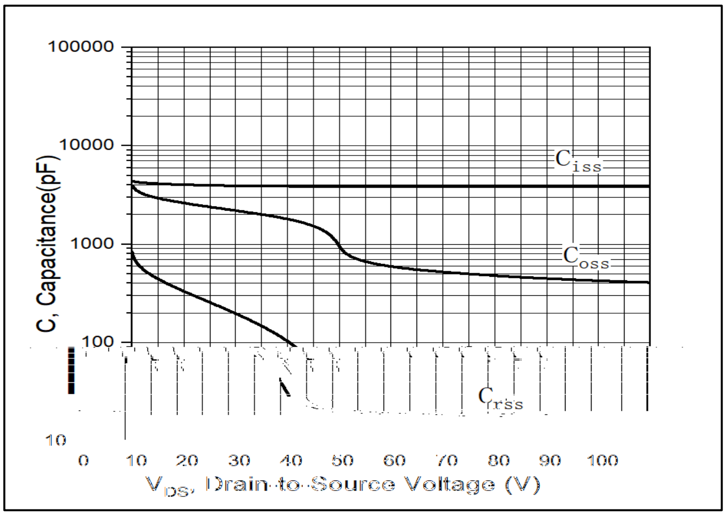


Figure5. Capacitance

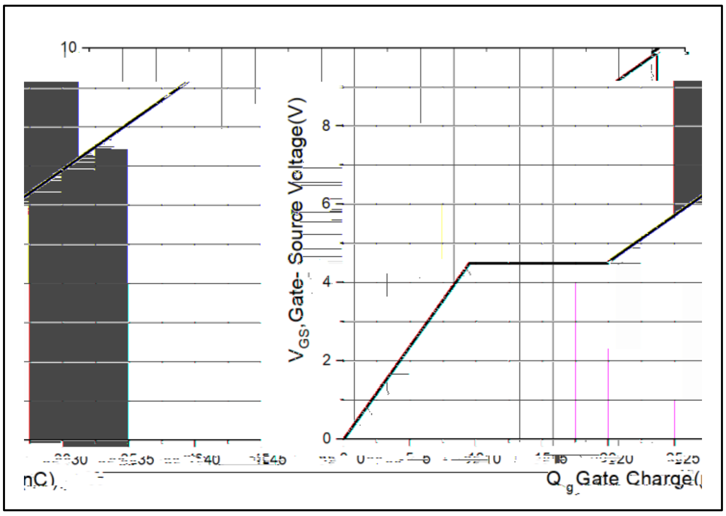
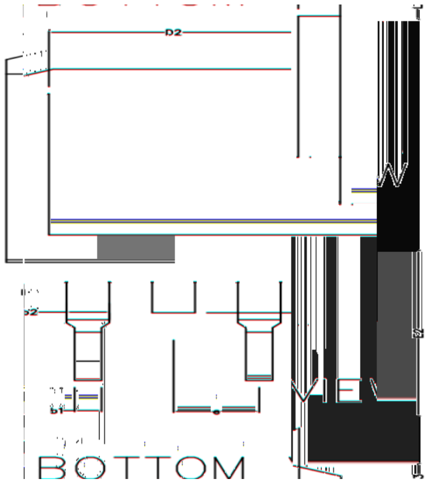
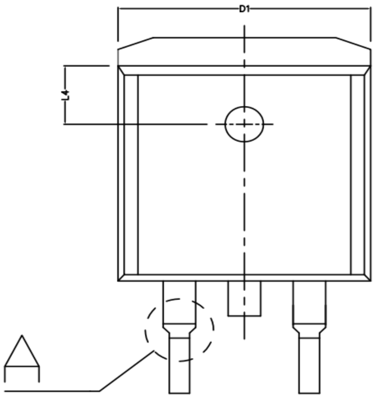


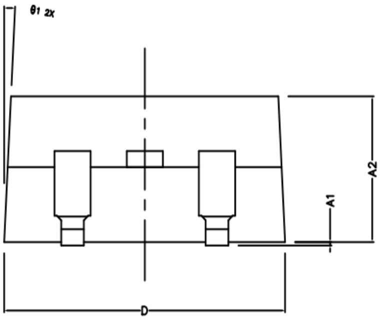
Figure6. Gate Charge

Option 2

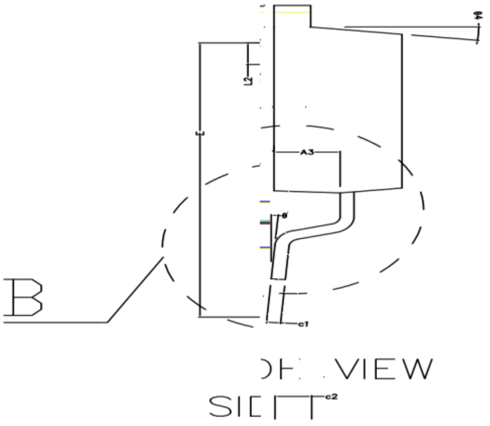


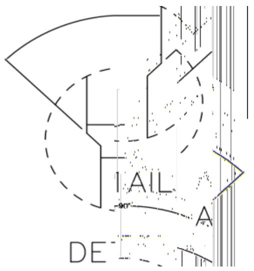


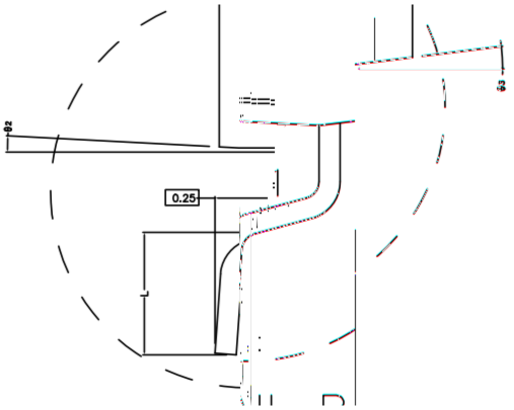
TOP VIEW



SIDE VIEW







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