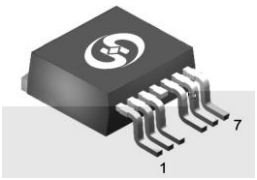
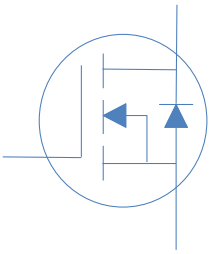
65V N-Ch Power MOSFET

V_{DS}	65	V
$R_{DS(on),typ}$	1.35	m
$I_{D\ (Sillicon\ Limited)}$	363	A
$I_{D\ (Package\ Limited)}$	180	A





Part Number	Package	Marking
HGB016NE6A	TO-263-7	GB016NE6A

Absolute Maximum Ratings at T_j=25℃ (unless otherwise specified)

Parameter	Symbol	Conditions	Value	Unit
Continuous Drain Current (Silicon Limited)	I_D	T_C=25℃	363	A
		T_C=100℃	257	
Continuous Drain Current (Silicon Limited)		T_C=25℃	180	
Drain to Source Voltage	V_{DS}	-	65	V
Gate to Source Voltage	V_{GS}	-	±20	V
Pulsed Drain Current	I_{DM}	-	900	A
Avalanche Energy, Single Pulse	E_{AS}	L=0.1mH, T_C=25℃	180	mJ
Power Dissipation	P_D	T_C=25℃	333	W
Operating and Storage Temperature	T_J, T_{stg}	-	-55 to175	℃

Absolute Maximum Ratings

Parameter	Symbol	Max	Unit
Thermal Resistance Junction-Ambient	R_{JA}	60	℃/W
Thermal Resistance Junction-Case	R_{JC}	0.45	℃/W

	-	8671	-	
	-	3042	-	pF
		161	-	
		28	-	
V_{GS}=0V, I_F=20A	-	0.9		

Figure 7. Typical Gate-Charge vs. Gate-to-Source Voltage

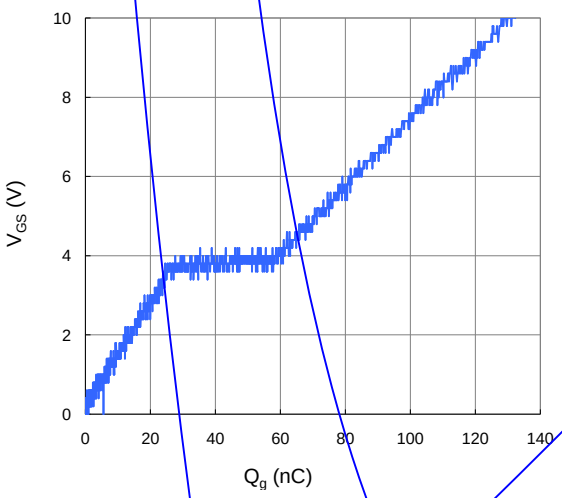


Figure 8. Typical Capacitance vs. Drain-to-Source Voltage

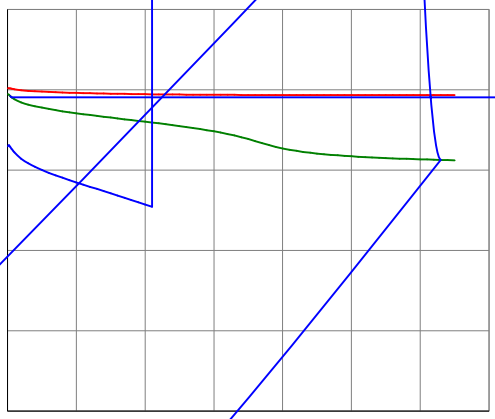
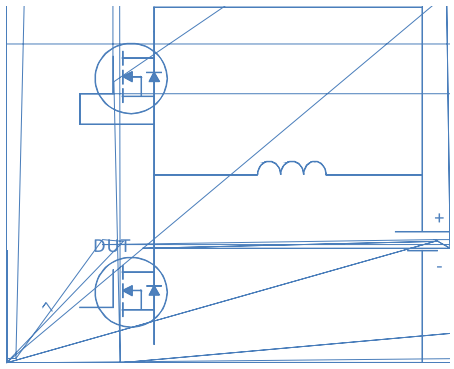


Figure 9. Maximum Safe Operating Area

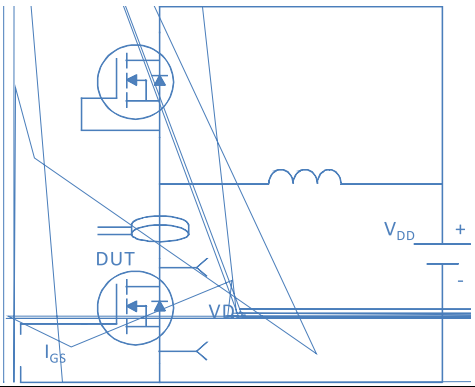
Figure 10. Maximun Drain Current vs. Case Temperature

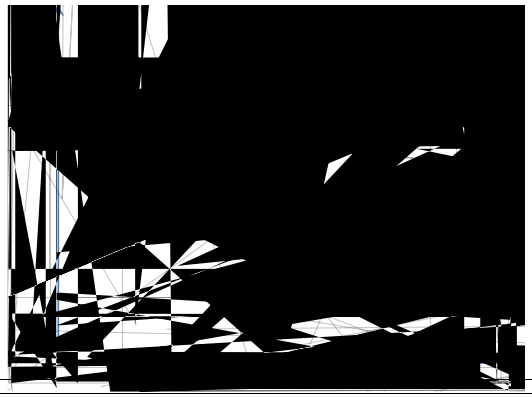
Figure 11. Normalized Maximum Transient Thermal Impedance, Junction-to-Ambient

Inductive switching Test



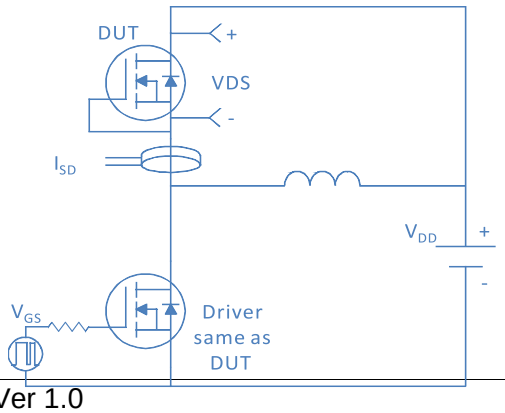
Gate Charge Test





Uclamped Inductive Switching (UIS) Test

Diode Recovery Test



Package Outline

TO-263-7, 7 leads