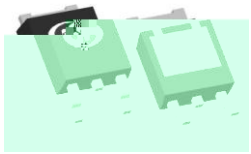
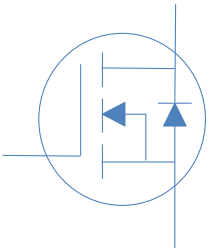
65V N-Ch Power MOSFET

V_{DS}	65	V
$R_{DS(on),typ}$	2.6	m
$I_{D\ (Sillicon\ Limited)}$	160	A
$I_{D\ (Package\ Limited)}$	120	A





Part Number	Package	Marking
HGD028NE6A	TO-252	GD028NE6A

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℃	160	A
		T_C=100℃	113	
Continuous Drain Current (Package Limited		T_C=25℃	120	
Drain to Source Voltage	V_{DS}	-	65	V
Gate to Source Voltage	V_{GS}	-	±20	V
Pulsed Drain Current	I_{DM}	-	400	A
Avalanche Energy, Single Pulse	E_{AS}	L=0.1mH, T_C=25℃	80	mJ
Power Dissipation	P_D	T_C=25℃	150	W
Operating and Storage Temperature	T_J, T_{stg}	-	-55 to175	℃

Absolute Maximum Ratings

Parameter	Symbol	Max	Unit
Thermal Resistance Junction-Ambient	R_{JA}	46	℃/W
Thermal Resistance Junction-Case	R_{JC}	1	℃/W

Total Gate Charge			-			
Gate to Source Charge	Q_{gs}	V_{DD}=30V, I_D=20A, V_{GS}=10V		16	-	
Gate to Drain (Miller) Charge			-	15	-	
		V_{DD}=30V, I_D=20A, V_{GS}=10V,		12	-	ns
		R_G=10 ,		52	-	
				19	-	

Reverse Diode Characteristics

Diode Forward Voltage	V_{SD}	V_{GS}=0V, I_F=20A	-	0.9	1.2	V

Fig 1. Typical Output Characteristics

Figure 2. On-Resistance vs. Gate-Source Voltage

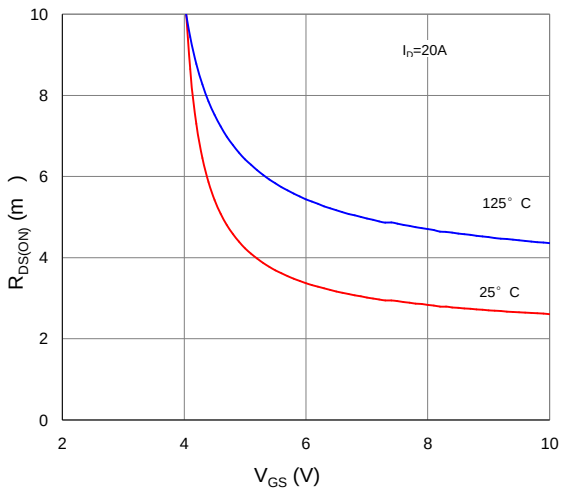


Figure 3. On-Resistance vs. Drain Current and Gate Voltage

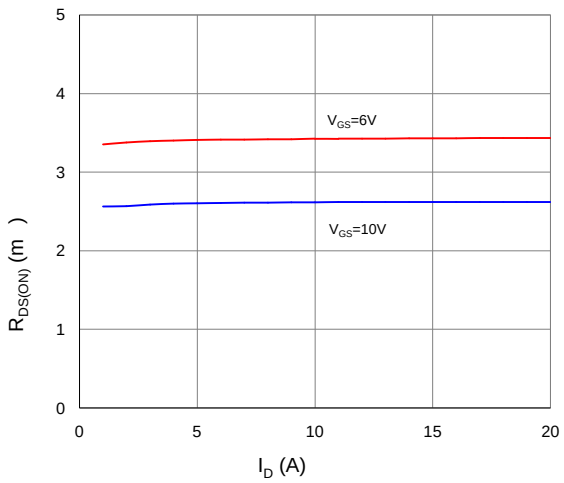


Figure 4. Normalized On-Resistance vs. Junction Temperature

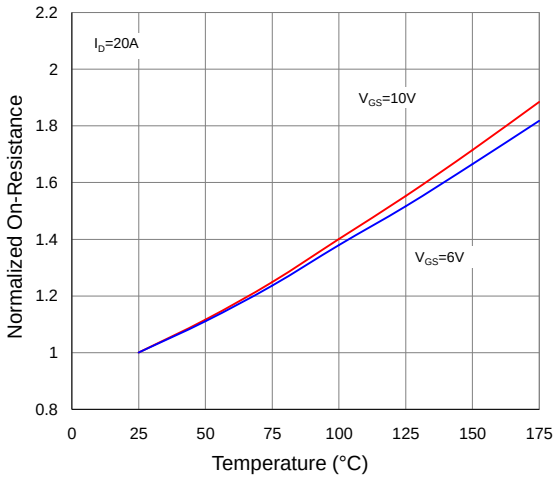


Figure 5. Typical Transfer Characteristics

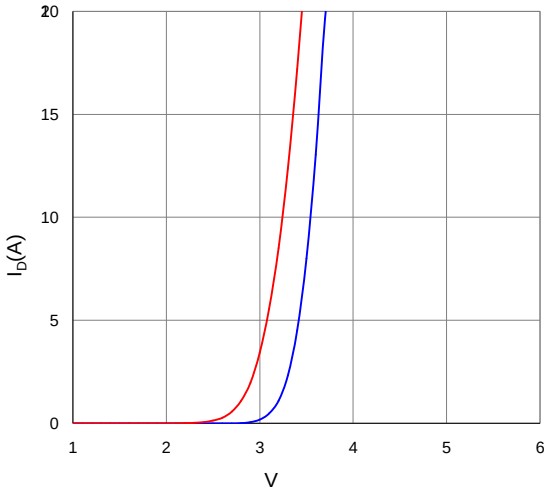


Figure 6. Typical Source-Drain Diode Forward Voltage

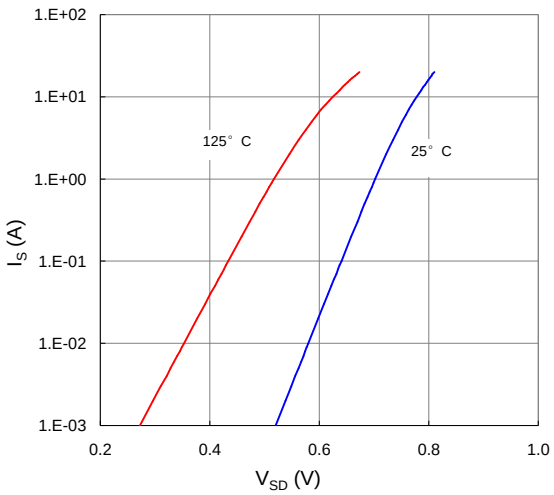


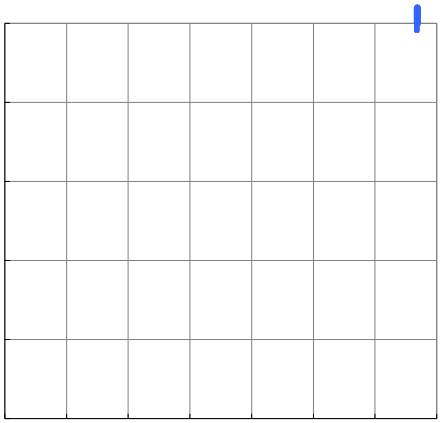
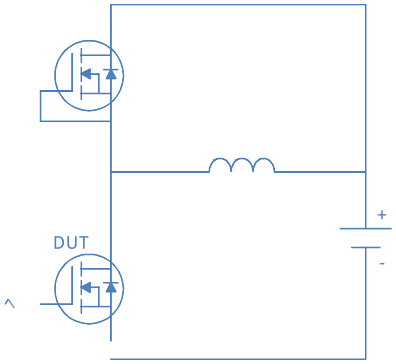
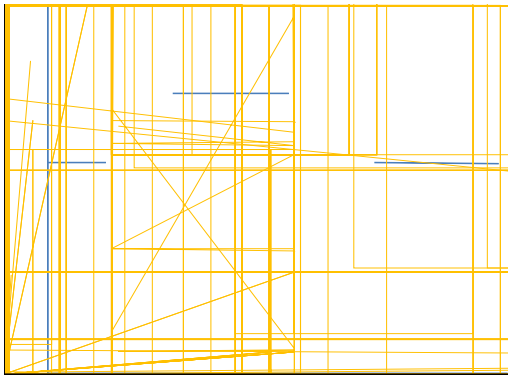
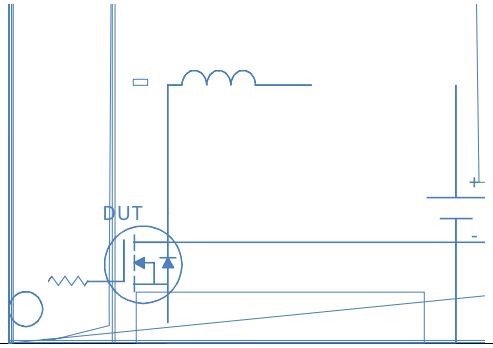
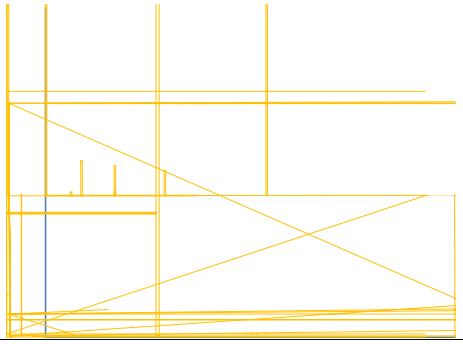
Figure 7. Typical Gate-Charge vs. Gate-to-Source Voltage	Figure 8. Typical Capacitance vs. Drain-to-Source Voltage
	

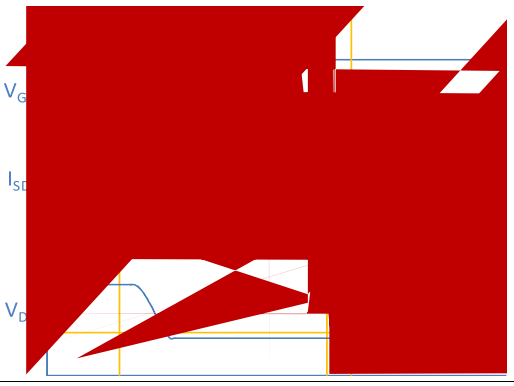
Figure 9. Maximum Safe Operating Area	Figure 10. Maximun Drain Current vs. Case Temperature

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

Inductive switching Test	
	

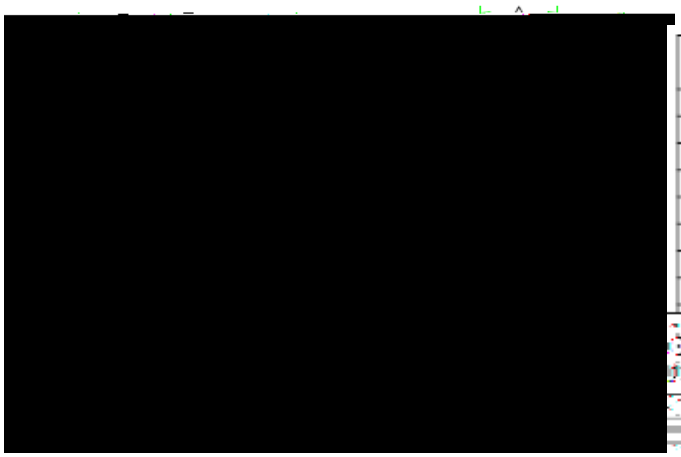
Gate Charge Test	
	

Uclamped Inductive Switching (UIS) Test	
	

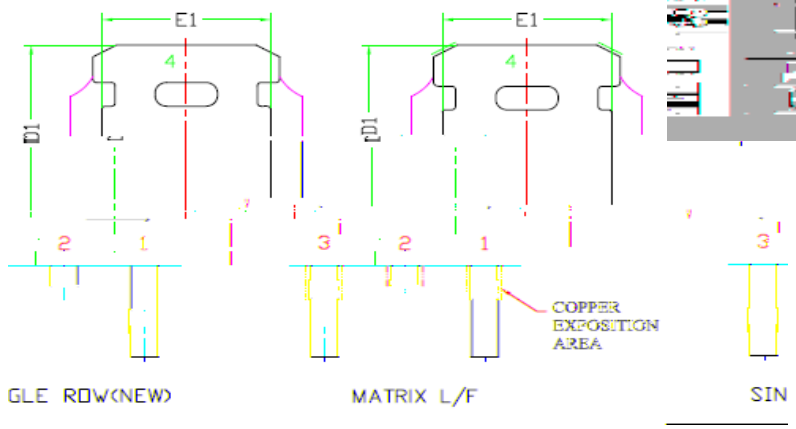
Diode Recovery Test	
	

Package Outline

TO-252, 3 leads



SYMBOL	DIMENSIONAL REQMTS		
	MIN	NOM	MAX
E	6.40	6.60	6.731
L	1.40	1.52	1.77
L1		2.743 REF	
L2		0.508 BSC	
L3	0.89	--	1.27
L4	0.64	--	1.01
L5	--	--	--
D	6.00	6.10	6.223



GLE ROW(NEW) MATRIX L/F SIN