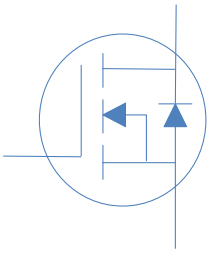
80V N-Ch Power MOSFET

V_{DS}		80	V
$R_{DS(on),typ}$	V_{GS}=10V	3.2	m
$R_{DS(on),typ}$	V_{GS}=4.5V	4.3	m
I_D		150	A



Part Number	Package	Marking
HGP035N08AL	TO-220	GP035N08AL

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

Parameter	Symbol	Conditions	Value	Unit
Continuous Drain Current	I_D	T_C=25℃	150	A
		T_C=100℃	106	
Drain to Source Voltage	V_{DS}	-	80	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℃	172	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}	0.87	℃/W

			min	typ		Unit
Drain to Source Breakdown Voltage	$V_{(BR)DSS}$	V_{GS}=0V, I_D=250 A	80			V
	$V_{GS(th)}$	V_{GS}=V_{DS}, I_D=250 A	1.0		2.4	
					5.3	
			-	3738		
			-			
Turn on Delay Time	$t_{d(on)}$		-		-	
Rise time	t_r	V_{DD}=40V, I_D=20A, V_{GS}=10V,	-			
Turn off Delay Time	$t_{d(off)}$	R_G=10 ,	-			
Fall Time	t_f		-		-	
Reverse Diode Characteristics						
Diode Forward Voltage	V_{SD}		-	0.9	1.2	

20A=0V S

Fig 1. Typical Output Characteristics	Figure 2. On-Resistance vs. Gate-Source Voltage

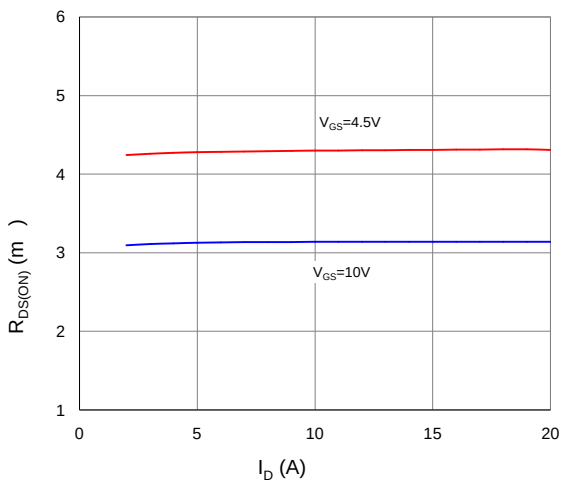
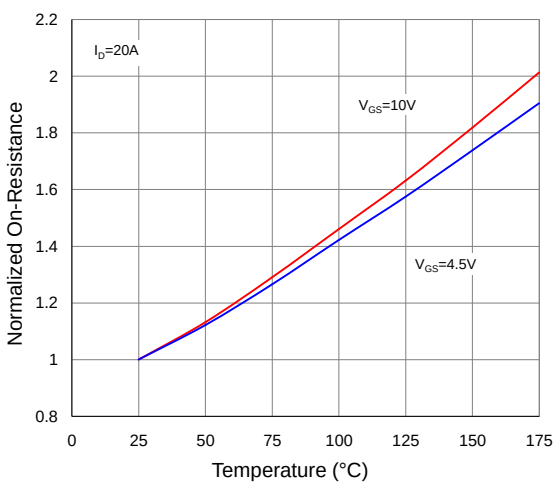
Figure 3. On-Resistance vs. Drain Current and Gate Voltage	Figure 4. Normalized On-Resistance vs. Junction Temperature
	

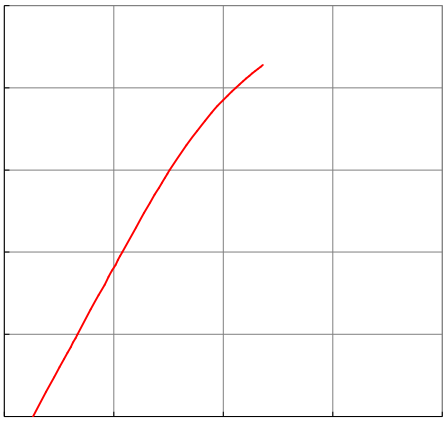
Figure 5. Typical Transfer Characteristics	Figure 6. Typical Source-Drain Diode Forward Voltage
	

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

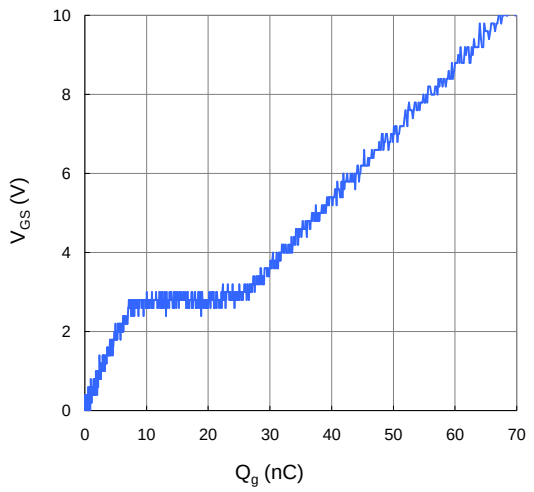


Figure 8. Typical Capacitance vs. Drain-to-Source Voltage

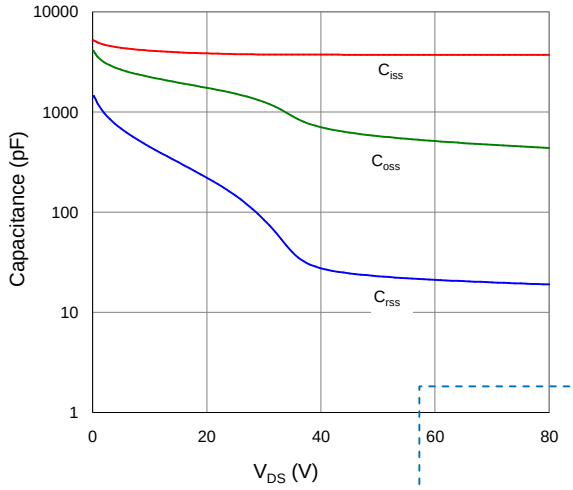


Figure 9. Maximum Safe Operating Area

Figure 10. Maximun Drain Current vs. Case Temperature

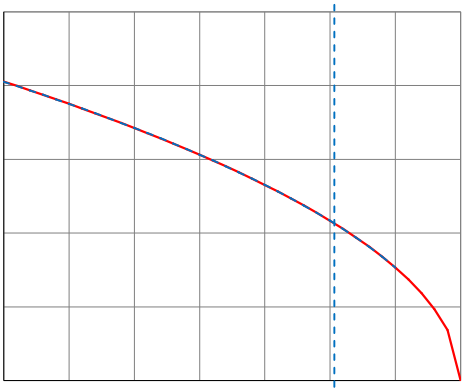
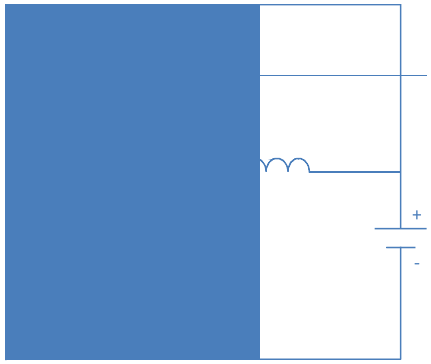
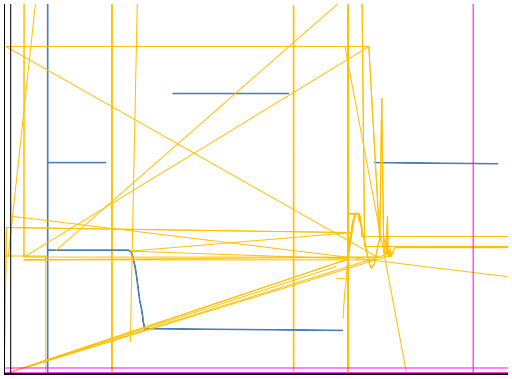


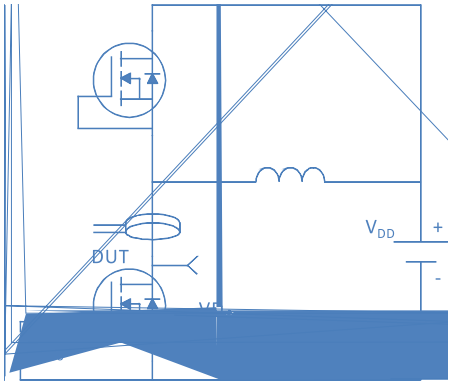
Figure 11. Normalized Maximum Transient Thermal Impedance, Junction-to-Ambient

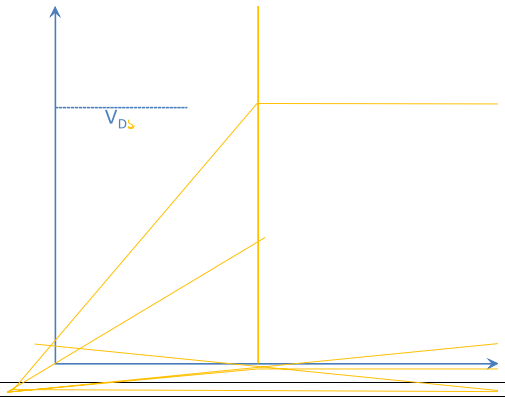
Inductive switching Test



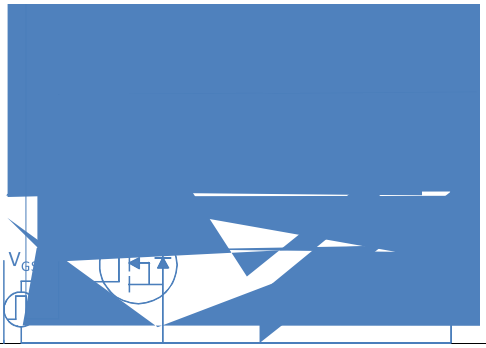


Gate Charge Test

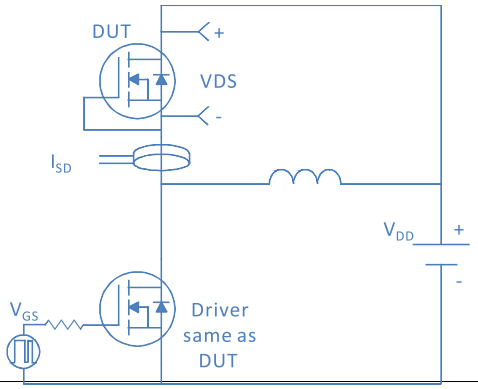


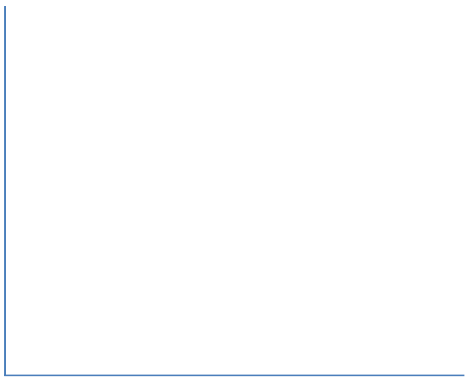


Uclamped Inductive Switching (UIS) Test



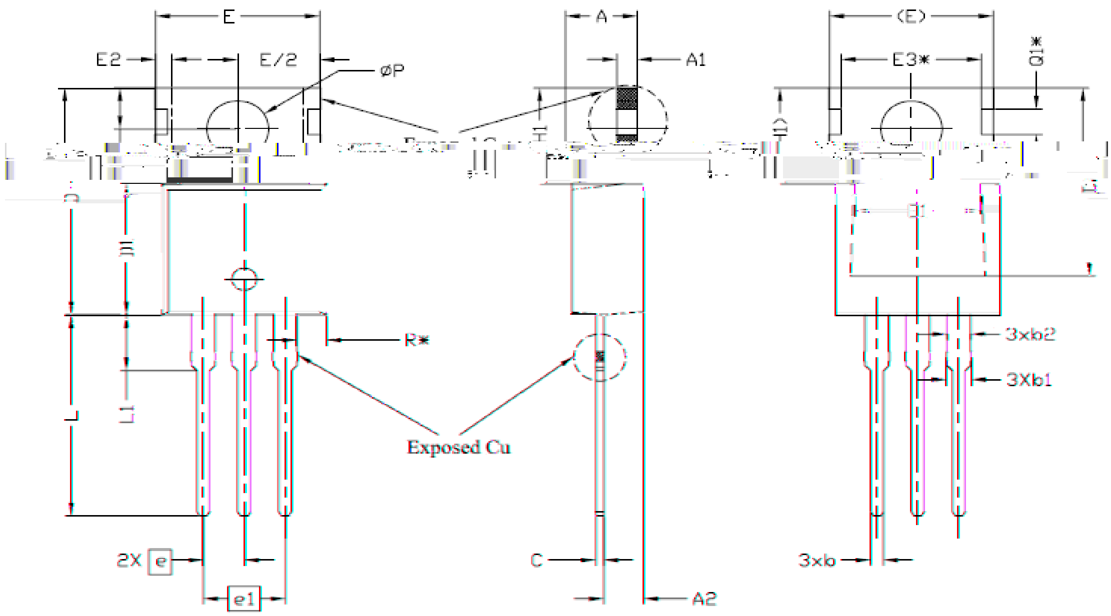
Diode Recovery Test





Package Outline

TO-220, 3 leads



SYMBOL	DIMENSIONS			NOTES
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