HGN036N08A P-1

80V N-Ch Power MOSFET

V_{DS}		80	V
$R_{DS(on),typ}$	V_{GS}=10V	3.0	m
$I_{D\ (Sillicon\ Limited)}$		138	A
$I_{D\ (Package\ Limited)}$		60	A

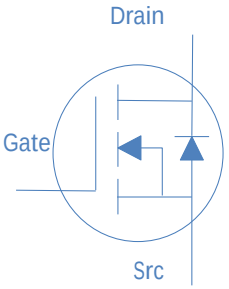
Feature

- High Speed Power Switching
- Enhanced Body diode dv/dt capability
- Enhanced Avalanche Ruggedness
- 100% UIS Tested, 100% Rg Tested
- Lead Free, Halogen Free

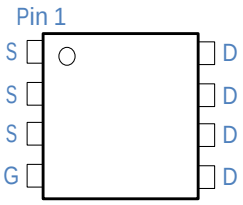
Application

- Synchronous Rectification in SMPS
- Hard Switching and High Speed Circuit
- DC/DC in Telecoms and Industrial

DFN5x6



Part Number	Package	Marking
HGN036N08A	DFN5*6	GN036N08A



Absolute Maximum Ratings at T_j

Parameter	Symbol	Conditions	Value	Unit
Continuous Drain Current (Silicon Limited)	I_D	T_C	138	A
		T_C	88	
Continuous Drain Current (Package Limited)		T_C	60	
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=0.4mH, T_C	320	mJ
Power Dissipation	P_D	T_C	125	
Operating and Storage Temperature	T_J, T_{stg}	-	-55 to150	

Absolute Maximum Ratings

Parameter	Symbol	Max	Unit
Thermal Resistance Junction-Ambient	R_{JA}	55	
Thermal Resistance Junction-Case	R_{JC}	1	

Electrical Characteristics at T_j

Static Characteristics

Parameter	Symbol	Conditions	Value min	Value typ	Value max	Unit
Gate Threshold Voltage			80	-	- 4.0	V
Drain to Source on Resistance					3.6	m
Transconductance						

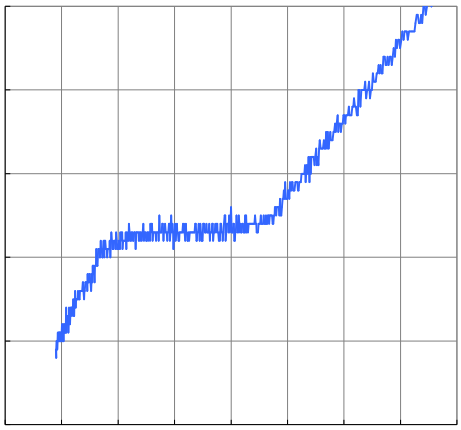
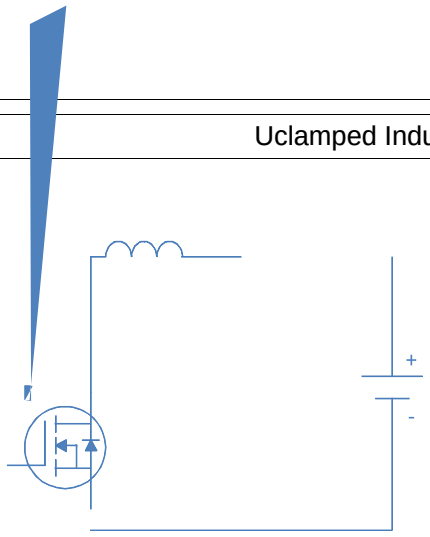
Figure 7. Typical Gate-Charge vs. Gate-to-Source Voltage	Figure 8. Typical Capacitance vs. Drain-to-Source Voltage
	

	Figure 10. Maximun Drain Current vs. Case Temperature

Inductive switching Test	

Gate Charge Test	

Uclamped Inductive Switching (UIS) Test	
	

Diode Recovery Test	

line

DFN5x6_P, 8 Leads