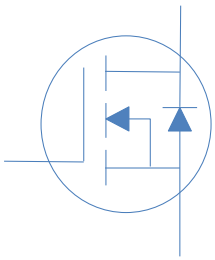
100V N-Ch Power MOSFET

V_{DS}		100	V
$R_{DS(on),typ}$	V_{GS}=10V	22	mΩ
$R_{DS(on),typ}$	V_{GS}=4.5V	25	mΩ
$I_{D\ (Sillicon\ Limited)}$		31	A



Part Number	Package	Marking
HGD290N10SL	TO-252	GD290N10SL
HGI290N10SL	TO-251	GI290N10SL

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	31	A
		T_C=100	22	
Drain to Source Voltage	V_{DS}	-	100	V
Gate to Source Voltage	V_{GS}	-	±20	V
Pulsed Drain Current	I_{DM}	-	80	A
Avalanche Energy, Single Pulse	E_{AS}	L=0.4mH, T_C=25	20	mJ
Power Dissipation	P_D	T_C=25	62.5	W
Operating and Storage Temperature	T_J, T_{stg}	-	-55 to 175	

Absolute Maximum Ratings

Parameter	Symbol	Max	Unit
Thermal Resistance Junction-Ambient	$R_{\theta JA}$	50	/W
Thermal Resistance Junction-Case	$R_{\theta JC}$	2.4	/W

					-	
					-	
Turn on Delay Time	$t_{d(on)}$		-	7	-	
Rise time	t_r	V_{DD}=50V, I_D=8A, V_{GS}=10V,		4	-	ns
Turn off Delay Time	$t_{d(off)}$	R_G=10Ω,	-	20	-	
Fall Time	t_f		-	4		

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

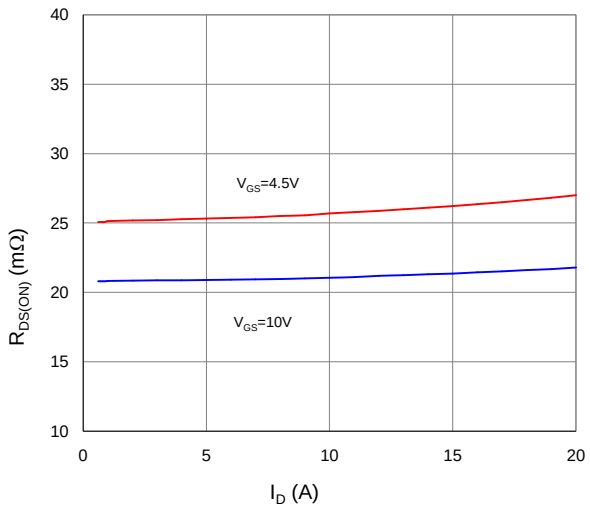
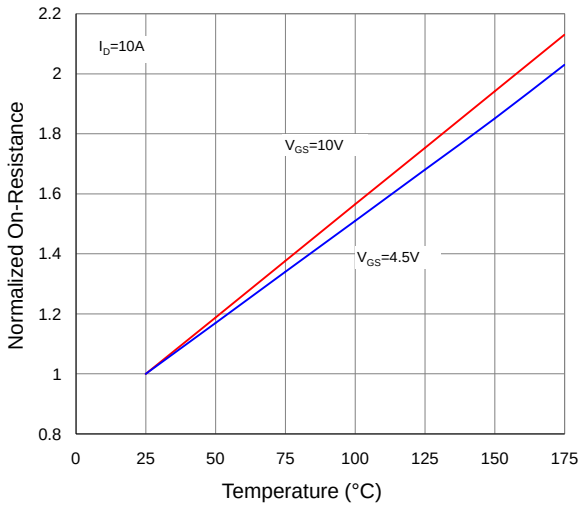
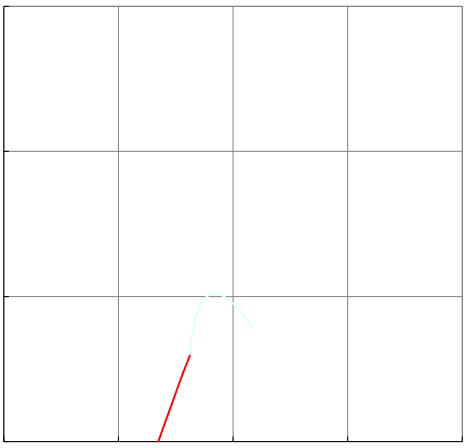
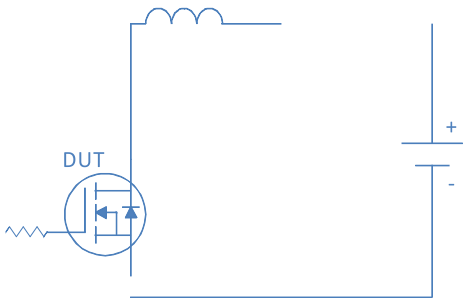
Figure 3. On-Resistance vs. Drain Current and Gate Voltage	Figure 4. Normalized On-Resistance vs. Junction Temperature
	

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

HGD290N10SL，HGI290N10SL

Inductive switching Test	

Gate Charge Test	

Uclamped Inductive Switching (UIS) Test	
	

Diode Recovery Test	

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