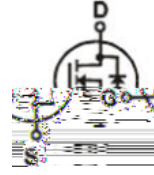


Product Summary

It combines advanced trench MOSFET technology with a low resistance package to provide extremely low $R_{DS(ON)}$.



1 R u r t 1 Trench technology

$R_{DS(ON)}$ to minimize conductive loss

1 X r 1 T r 1 1 1 r
1 e r 1 r t



d a d Synchronous Rectifier
S T 1 1 u

Part NO.	ZM100N08HD
Marking	ZM100N08H
Packing Information	REEL TAPE
Basic ordering unit (pcs)	2500

$T_C = 25$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	80	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current	$I_{D@TC=25}$	50	A
	$I_{D@TC=75}$	38	A
	$I_{D@TC=100}$	31	A
Pulsed Drain Current	I_{DM}	150	A
Total Power Dissipation($T_C=25$)	$P_D@TC=25$	60	W
Total Power Dissipation($T_A=25$)	$P_D@TA=25$	2.0	W
Operating Junction Temperature	T_J	-55 to 150	
Storage Temperature	T_{STG}	-55 to 150	

**Thermal resistance**

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	R_{thJC}	-	-	1	C/W
Thermal resistance, junction - ambient	R_{thJA}	-	-	25	C/W
Soldering temperature, wavesoldering for 10s	T_{sold}	-	-	265	C

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS} = 0V, I_D = 250\mu A$	80			V
Gate Threshold Voltage	$V_{GS(TH)}$	$V_{GS} = V_{DS}, I_D = 250\mu A$	2		4	V
	I_{DSS}	$V_{DS} = 80V, V_{GS} = 0V$			1.0	μA
	I_{GSS}	$V_{GS} = \pm 20V, V_{DS} = 0V$			± 100	nA

Fig.1 Gate-Charge Characteristics

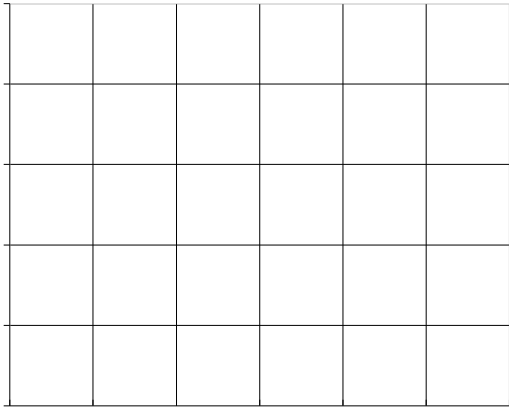


Fig.2 Capacitance Characteristics

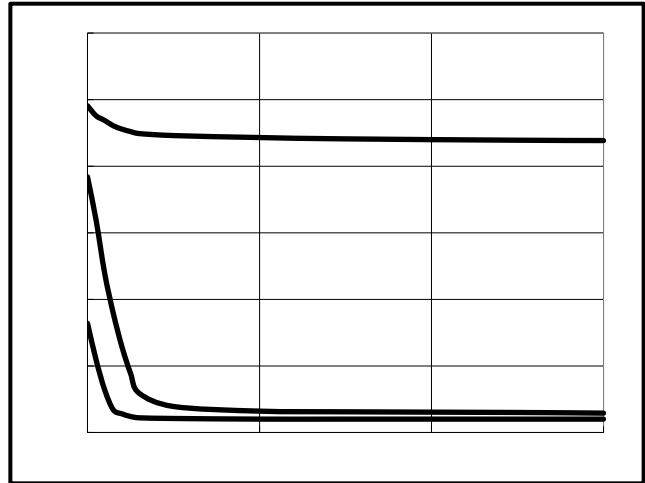


Fig.3 Power Dissipation

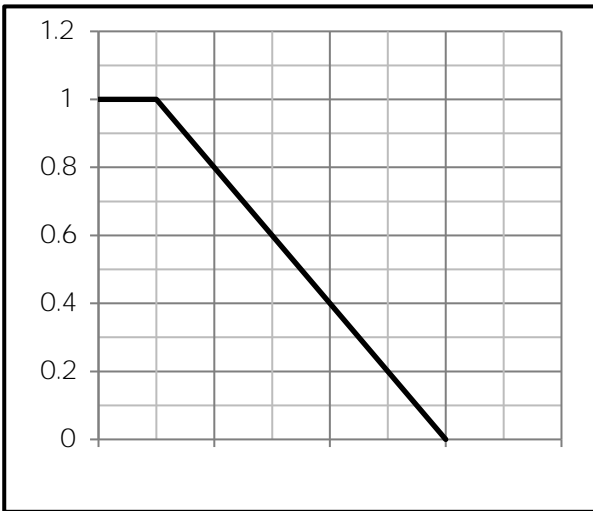


Fig.4 Typical output Characteristics

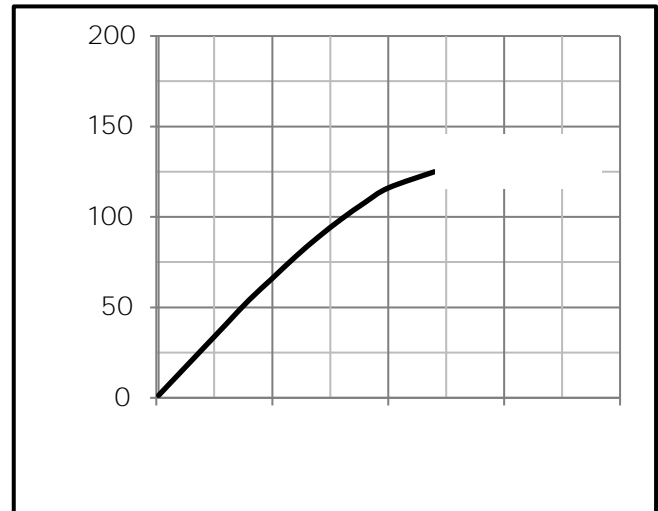


Fig.5 Threshold Voltage V.S Junction Temperature

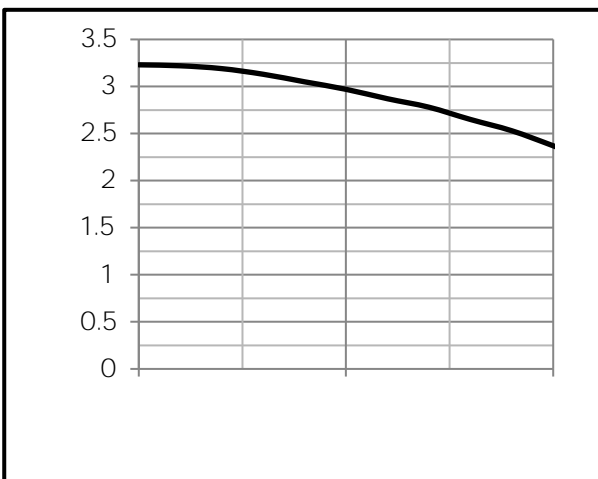
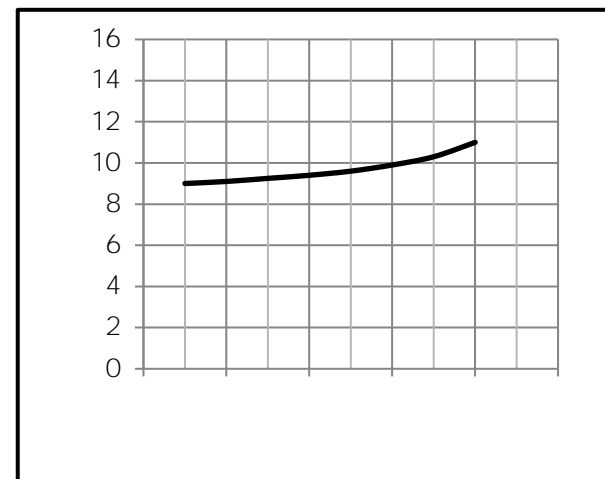


Fig.6 Resistance V.S Drain Current



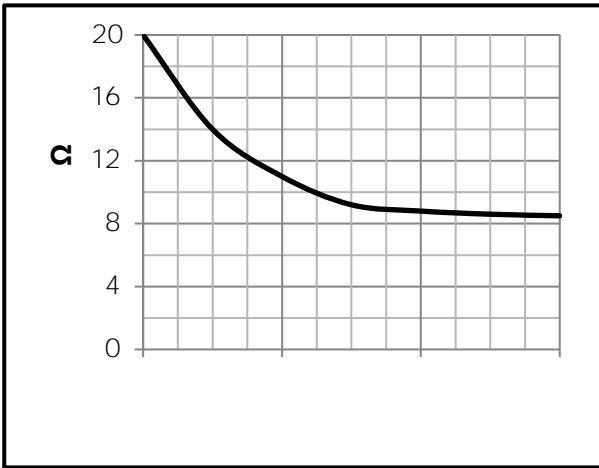


Fig.9 Switching Time Measurement Circuit

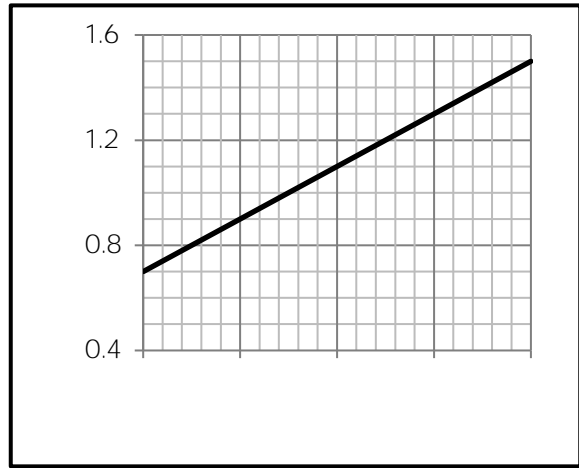


Fig.10 Gate Charge Waveform

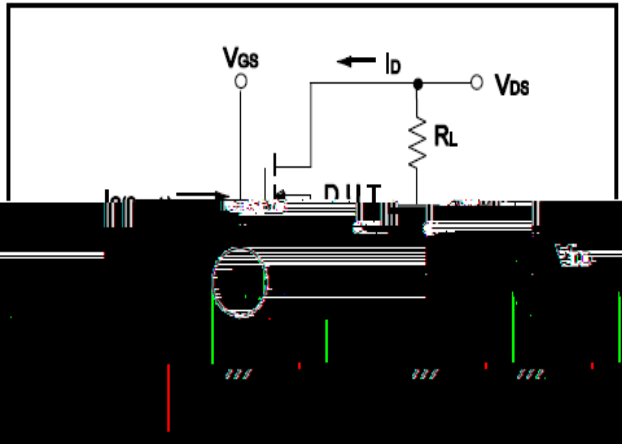


Fig.11 Switching Time Measurement Circuit

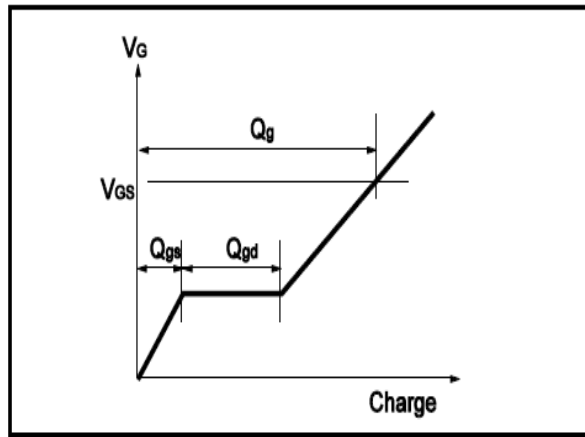
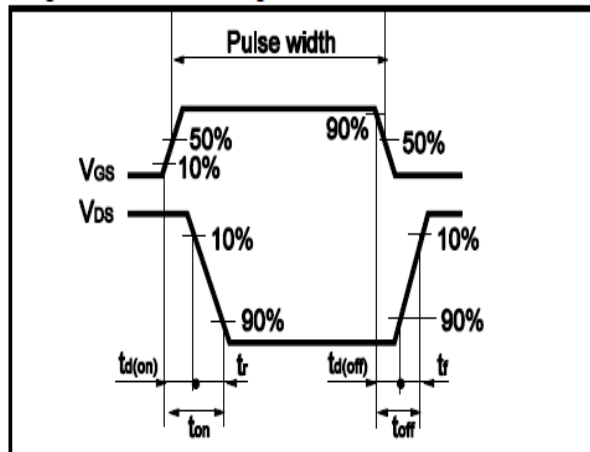
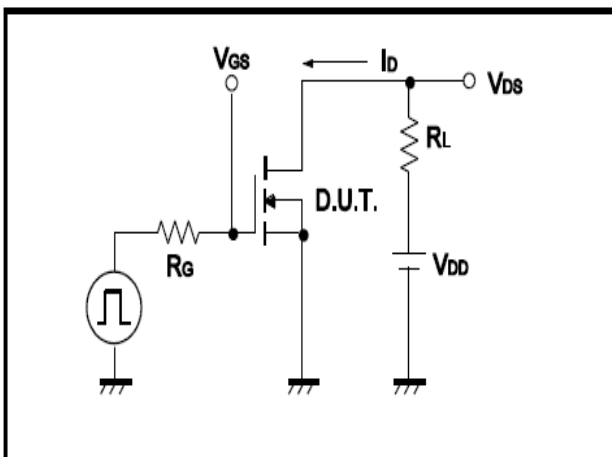


Fig.12 Gate Charge Waveform





(TO-252)

Unit mm

