● General Description

The ZM098N06M combines advanced trench MOSFET technology with a low resistance package to provide extremely low $R_{DS(ON)}$.

● Product Summary

V_{DS} =60V

$R_{DS(ON)}$ =10mΩ

I_D=50A

● Features

Trench technology

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

●Application

nd Synchronous Rectifier

●Ordering Information:

Part NO.	ZM098N06M
Marking	098N06
Packing Information	REEL TAPE
Basic ordering unit (pcs)	

●Absolute Maximum Ratings T_C =25

Parameter	**Symbol**	Rating	Unit
Drain-Source Voltage	V_{DS}	60	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}	104	A
Total Power Dissipation	P_D@T_C=25	46	W
Total Power Dissipation	P_D@T_A=25	2.3	W
Operating Junction Temperature	T_J	-55 to 150	
Storage Temperature	T_{STG}	-55 to 150	
Avalanche Current	I_{AS} I_{AR}	40	A

•Thermal resistance

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	R_{thJC}	-	-	2.7	° C/W
Thermal resistance, junction - ambient	R_{thJA}	-	-	53	° C/W
Soldering temperature, wavesoldering for 10s	T_{sold}	-	-	265	° C

Electronic Characteristics

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS} =0V, I_D =250uA	60			V
Gate Threshold Voltage	$V_{GS(TH)}$	V_{GS} =V_{DS}, I_D =250uA	1.2	1.7	2.5	V
Drain-Source Leakage Current	$I_{D2\ 22.08\ ref3}$					

Fig.1 Gate-Charge Characteristics

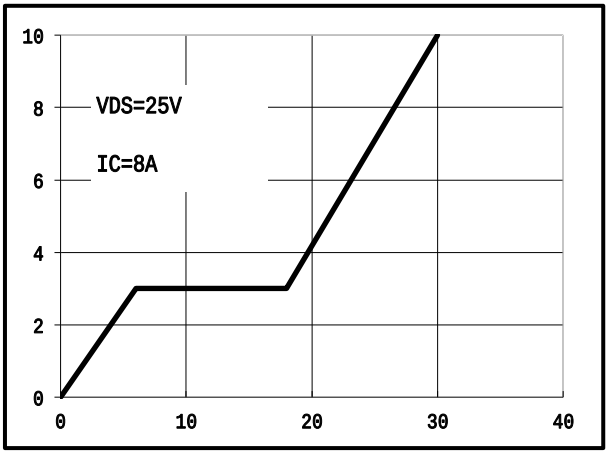

Fig.2 Capacitance Characteristics

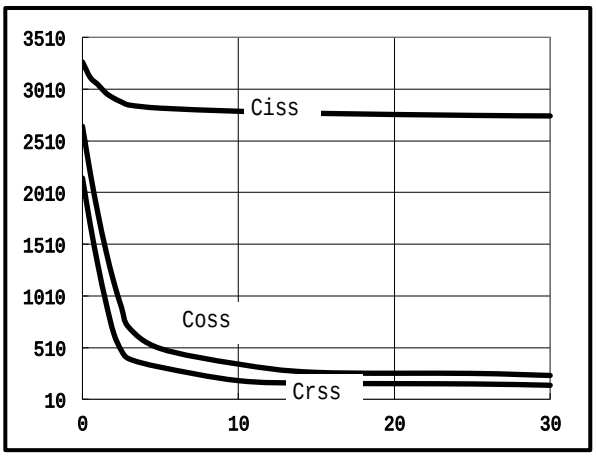

Fig.3 Power Dissipation

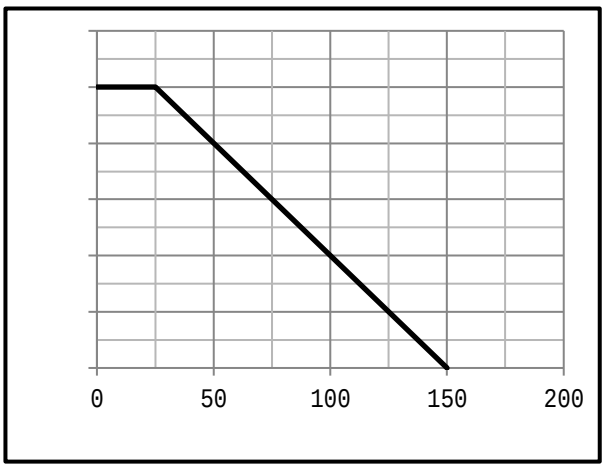

Fig.4 Typical output Characteristics

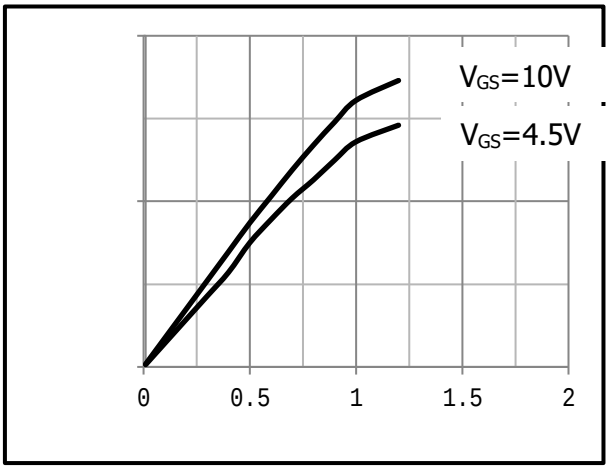

Fig.5 Threshold Voltage V.S Junction Temperature

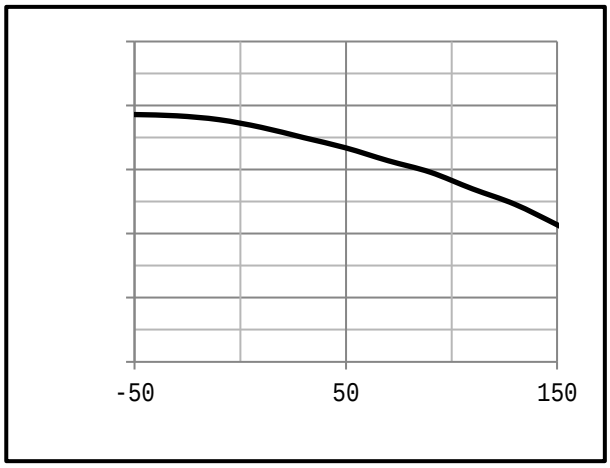

Fig.6 Resistance V.S Drain Current

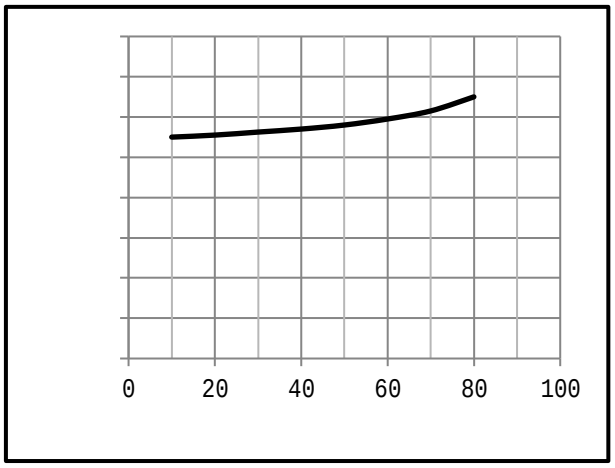

Fig.7 On-Resistance VS Gate Source Voltage

Fig.8 On-Resistance V.S Junction Temperature

Fig.9 Switching Time Measurement Circuit

Fig.10 Gate Charge Waveform

Fig.11 Switching Time Measurement Circuit

Fig.12 Gate Charge Waveform