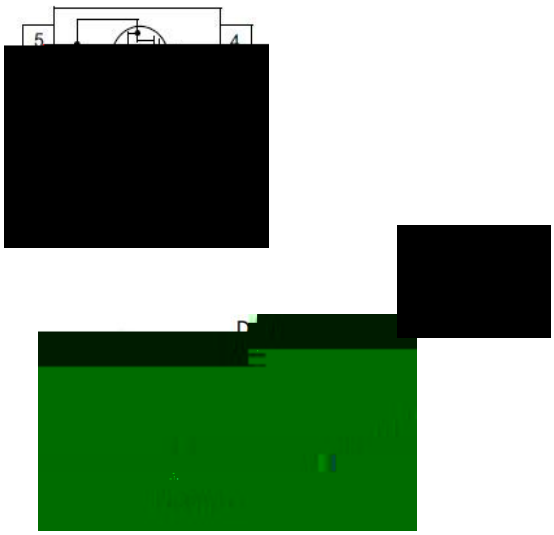
Product Summary

The ZMD68404N combines advanced trench MOSFET technology with a low resistance package to provide extremely low $R_{DS(ON)}$. This device is ideal for load switch and battery protection applications.



Advance high cell density Trench technology

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

Dual DIE in one package

Power Management in Notebook Computer, Portable Equipment and Battery Powered Systems driver

Information:

	ZMD68404N
	ZMD68404
	REEL TAPE
	3000

T_C =25

Parameter	**Symbol**	Rating	Unit
Drain-Source Voltage	V_{DS}	40	V
Gate-Source Voltage	V_{GS}	±20	V
Continuous Drain Current	I_D@T_C=25℃	47	A
	I_D@T_C=75℃	35	A
	I_D@T_C=100℃	30	A
Pulsed Drain Current	I_{DM}	141	A
Total Power Dissipation	P_D@T_C=25℃	85	W
Total Power Dissipation	P_D@T_A=25℃	3.4	W
Operating Junction Temperature	T_J	-55 to 150	℃
Storage Temperature	T_{STG}	-55 to 150	℃
Single Pulse Avalanche Energy	E_{AS}	120	mJ
Avalanche Current	I_{AS} I_{AR}	25	A

ESD Level (HBM)		Class 2	

Thermal resistance

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	R_{thJC}	-	-	1.5	° C/W
Thermal resistance, junction - ambient	R_{thJA}	-	-	37	° 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 =250uA	40			V
Gate Threshold Voltage	$V_{GS(TH)}$	V_{GS} =V_{DS}, I_D =250uA	1.3		2.5	V
Drain-Source Leakage Current	I_{DSS}	V_{DS}=40V, V_{GS} =0V			1.0	uA
Gate- Source Leakage Current	I_{GSS}	V_{GS}=±20V, V_{DS} =0V			±100	nA

Static Drain-source On Resistance

Fig.12 Switching Time Measurement Circuit

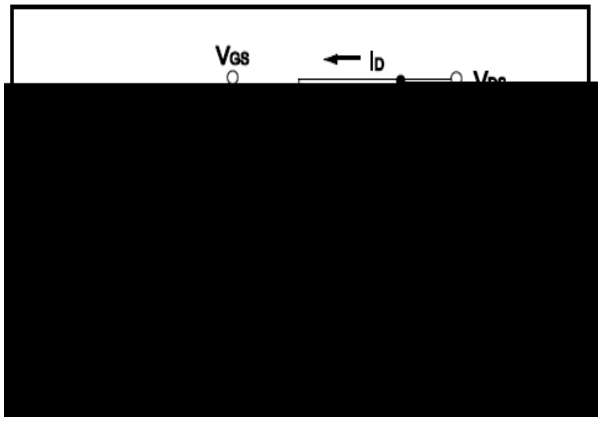


Fig.13 Gate Charge Waveform

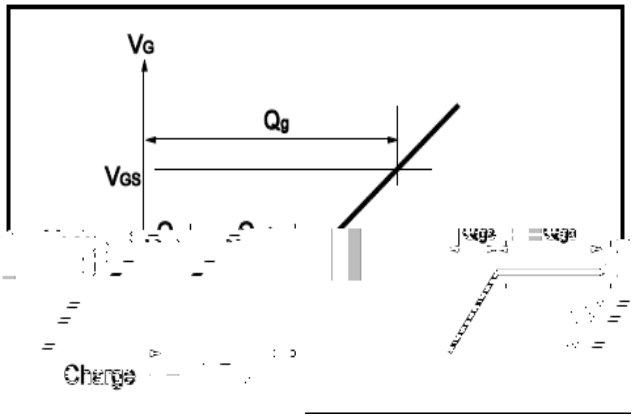


Fig.14 Switching Time Measurement Circuit

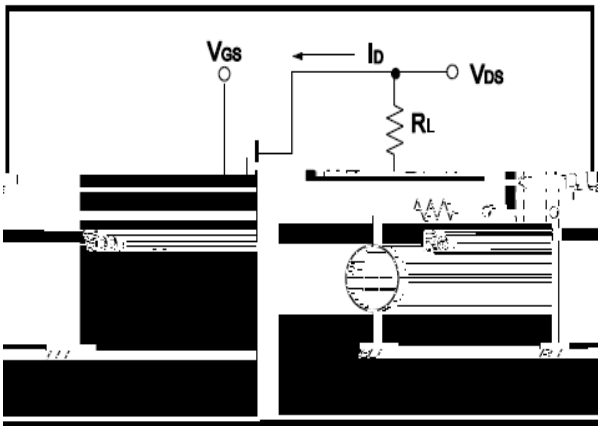


Fig.15 Gate Charge Waveform

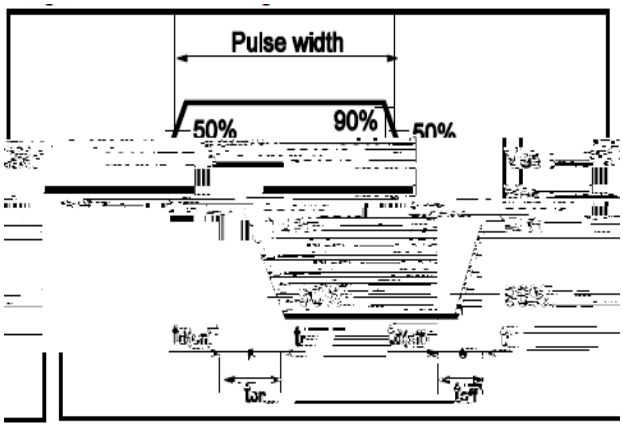


Fig.16 Avalanche Measurement Circuit

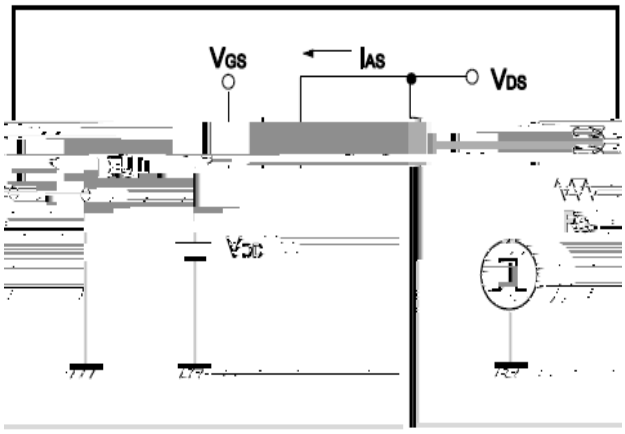
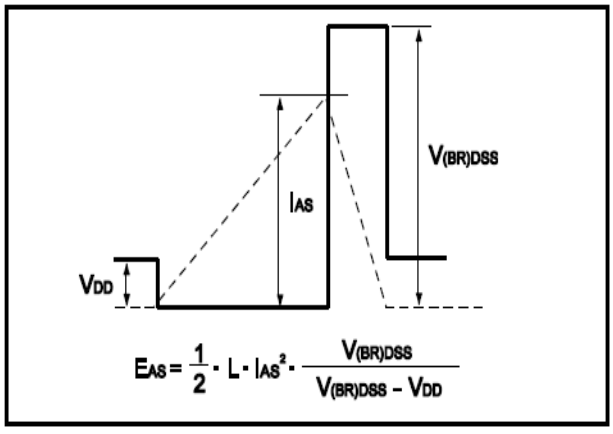


Fig.17 Avalanche Waveform



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