

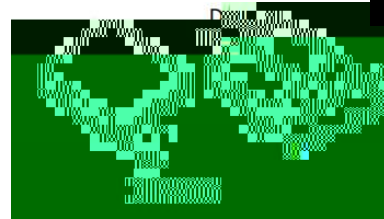
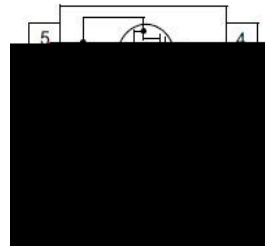
Product Summary

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	$I_D @ T_C = 25^\circ C$	47	A
	$I_D @ T_C = 75^\circ C$	35	A
	$I_D @ T_C = 100^\circ C$	30	A
Pulsed Drain Current	I_{DM}	141	A
Total Power Dissipation	$P_D @ T_C = 25^\circ C$	85	W
Total Power Dissipation	$P_D @ T_A = 25^\circ C$	3.4	W
Operating Junction Temperature	T_J	-55 to 150	$^\circ C$
Storage Temperature	T_{STG}	-55 to 150	$^\circ C$
Single Pulse Avalanche Energy	E_{AS}	120	mJ
Avalanche Current	$I_{AS} I_{AR}$	25	A



ESD Level (HBM)		Class 2	
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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}	$V_{GS} = 0V, I_D = 250\mu A$	40			V
Gate Threshold Voltage	$V_{GS(TH)}$	$V_{GS} = V_{DS}, I_D = 250\mu A$	1.3		2.5	V
Drain-Source Leakage Current	I_{DSS}	$V_{DS} = 40V, V_{GS} = 0V$			1.0	μA
Gate- Source Leakage Current	I_{GSS}	$V_{GS} = \pm 20V, V_{DS} = 0V$			± 100	nA

Static Drain-source On
Resistance



Fig.12 Switching Time Measurement Circuit

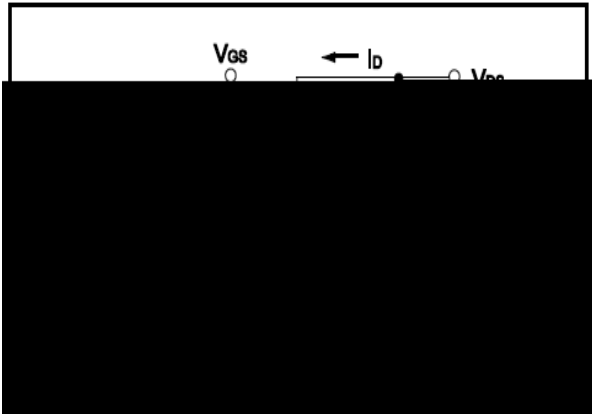


Fig.13 Gate Charge Waveform

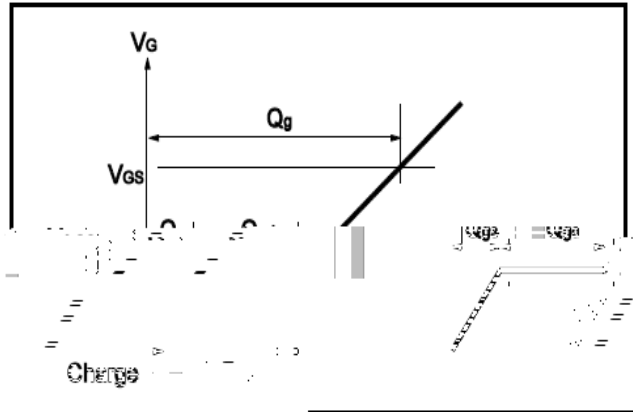


Fig.14 Switching Time Measurement Circuit

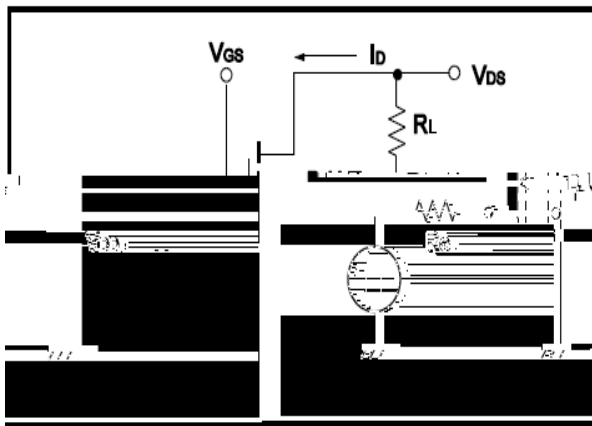


Fig.15 Gate Charge Waveform

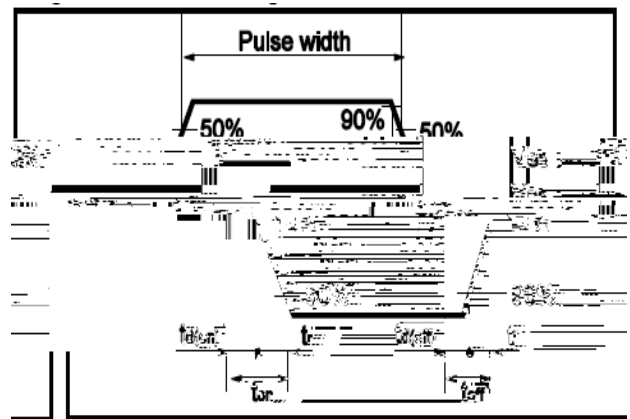


Fig.16 Avalanche Measurement Circuit

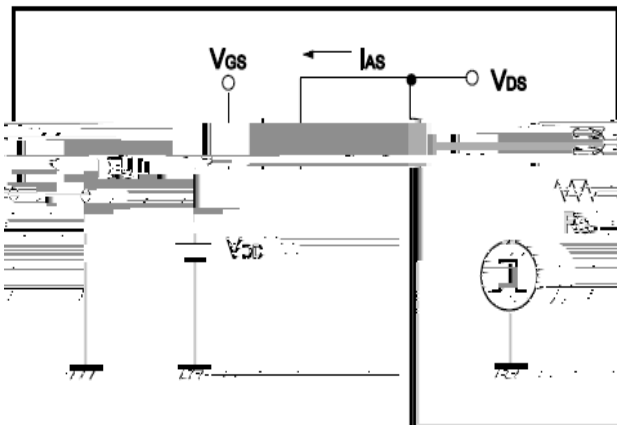
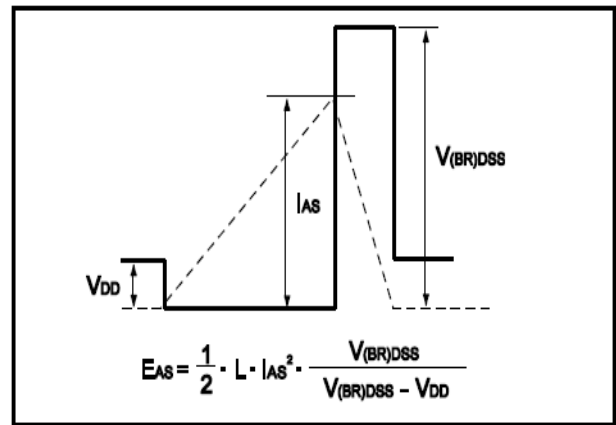


Fig.17 Avalanche Waveform





sions DFN5x6

