



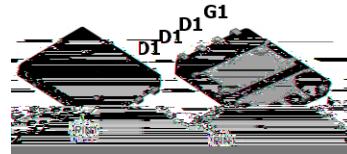
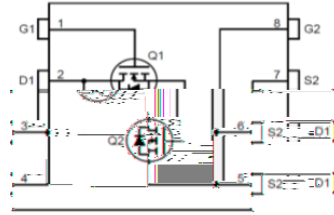
Product Summary

The ZMD68309N combines advanced trench MOSFET technology with a low resistance package to provide extremely low $R_{DS(ON)}$.

Trench technology

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

Dual DIE in one package



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

Part NO.	ZMD68309N
Marking	ZMD68309
Packing Information	REEL TAPE
Basic ordering unit (pcs)	3000

$T_c = 25$ Q1

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	30	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current	$I_D @ TC=25^\circ C$	25	A
	$I_D @ TC=75^\circ C$	19	A
	$I_D @ TC=100^\circ C$	15.8	A
Pulsed Drain Current	I_{DM}	50	A
Total Power Dissipation($TC=25^\circ C$)	$P_D @ TC=25^\circ C$	60	W
Total Power Dissipation($TA=25^\circ C$)	$P_D @ TA=25^\circ C$	1.8	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}	45	mJ
Avalanche Current	$I_{AS} I_{AR}$	20	A



Thermal resistance(Q1)

Parameter	Symbol	Min.	Typ.	Max.	Unit
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(Q2)

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Input capacitance	C_{iss}	f = 1MHz	-	1150	-	pF
Output capacitance	C_{oss}		-	230	-	
Reverse transfer capacitance	C_{rss}		-	113	-	

Gate Charge characteristics($T_a = 25$)(Q2)

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Total gate charge	Q_g	$V_{DD} = 25V$	-	16	-	nC
Gate - Source charge	Q_{gs}	$I_D = 5A$	-	6	-	
Gate - Drain charge	Q_{gd}	$V_{GS} = 10V$	-	8	-	

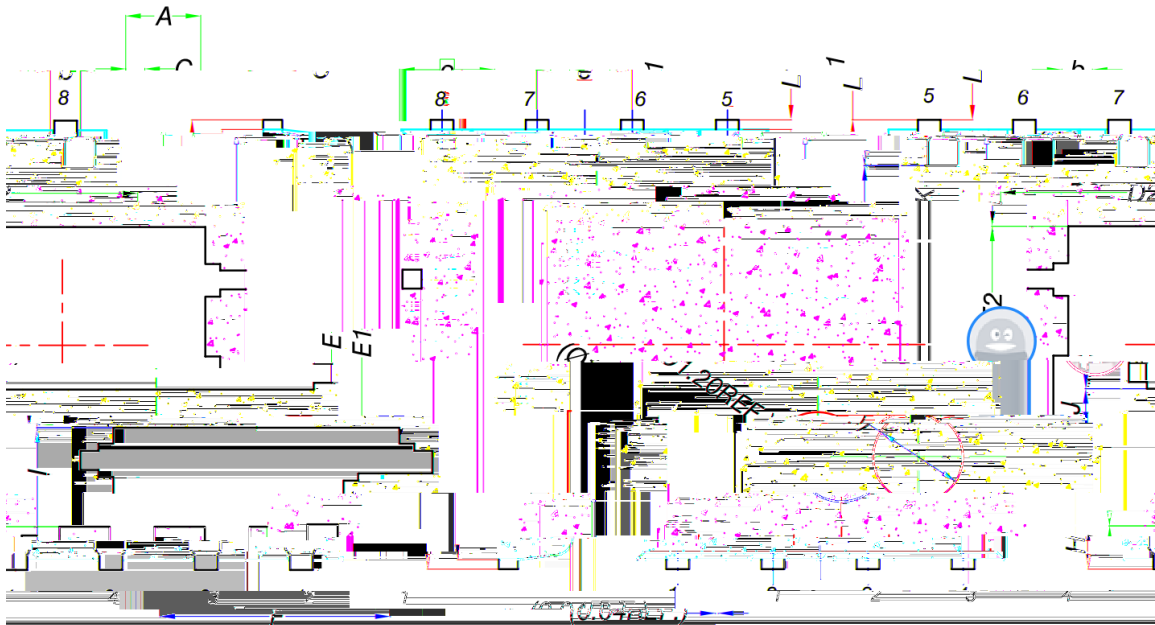
Note: ①

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Unit mm



BACKSIDE VIEW

