



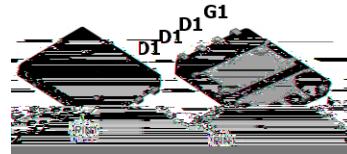
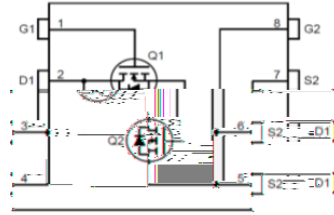
Product Summary

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



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

X

| | |
|---------------------------|-----------|
| 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 |
|-----------|--------|------|------|------|------|
|-----------|--------|------|------|------|------|



**(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 | - | |

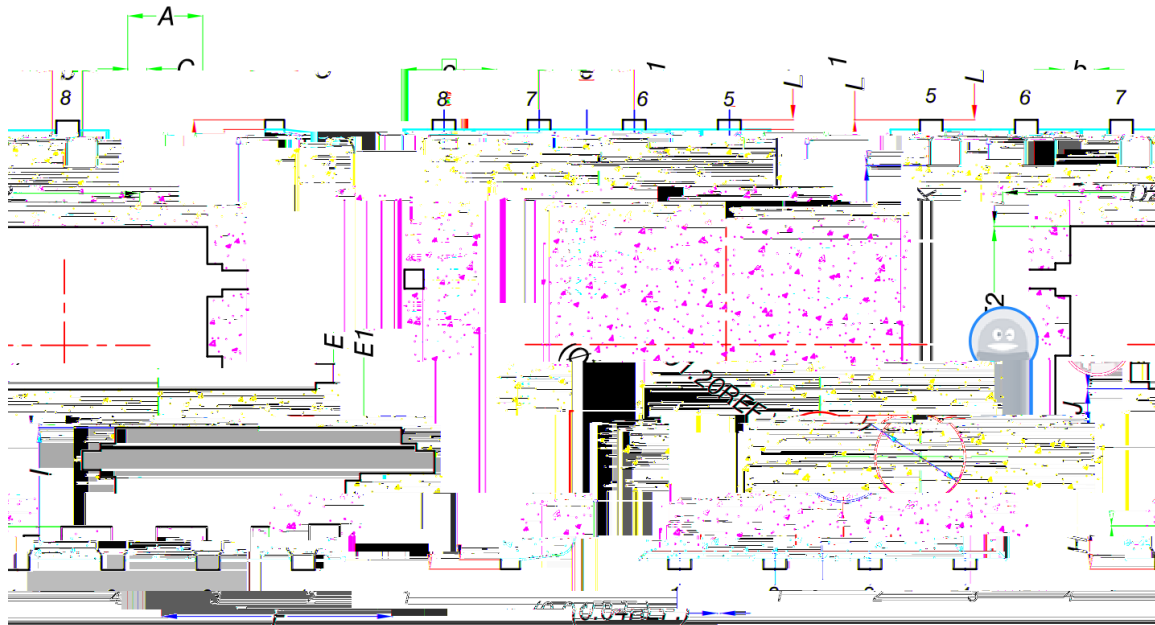
Note: ①

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sions DFN5x6

Unit mm



BACKSIDE VIEW

