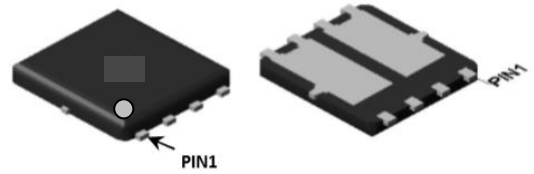
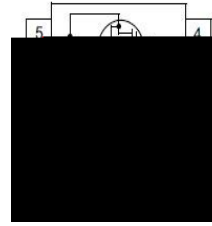


**Product Summary**

The ZMD68310M combines advanced trench MOSFET technology with a low resistance package to provide extremely low  $R_{DS(ON)}$ . Two N Channel MOSFET inside for dual DIE implication.



Advanced density Trench technology

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

Two N Channel MOSFET

Dual DIE in one package

Power Management in Notebook Computer

BLDC Motor driver

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

**Absolute Maximum Ratings  $T_C = 25$**

| Parameter                          | Symbol         | Rating     | Unit |
|------------------------------------|----------------|------------|------|
| Drain-Source Voltage               | $V_{DS}$       | 30         | V    |
| Gate-Source Voltage                | $V_{GS}$       | $\pm 20$   | V    |
| Continuous Drain Current           | $I_{D@TC=25}$  |            |      |
|                                    | $I_{D@TC=75}$  |            |      |
|                                    | $I_{D@TC=100}$ |            |      |
| Pulsed Drain Current               | $I_{DM}$       | 36         | A    |
| Total Power Dissipation( $TC=25$ ) | $P_D@TC=25$    | 3.2        | W    |
| Total Power Dissipation( $TA=25$ ) | $P_D@TA=25$    | 0.65       | W    |
| Operating Junction Temperature     | $T_J$          | -55 to 150 |      |
| Storage Temperature                | $T_{STG}$      | -55 to 150 |      |
| Single Pulse Avalanche Energy      | $E_{AS}$       | 65         | mJ   |





**Test Circuit**

Fig.1 Switching Time Measurement Circuit

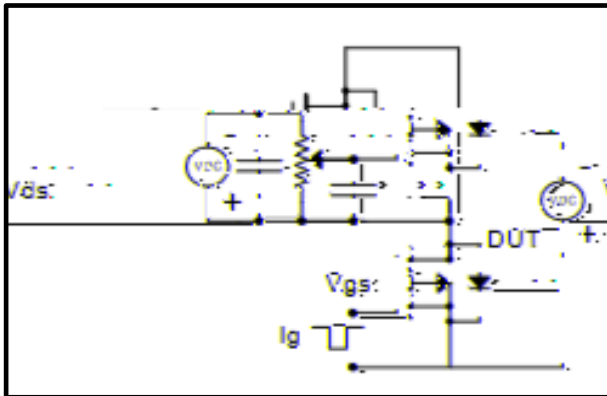


Fig.2 Gate Charge Waveform

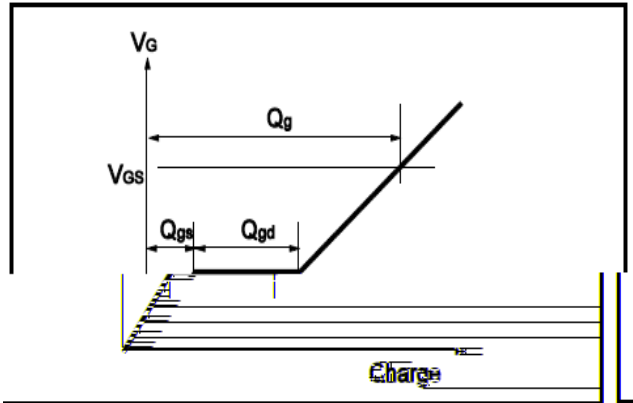


Fig.3 Switching Time Measurement Circuit

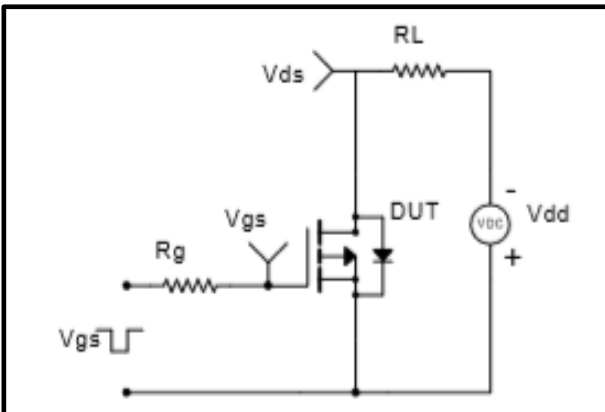


Fig.4 Gate Charge Waveform

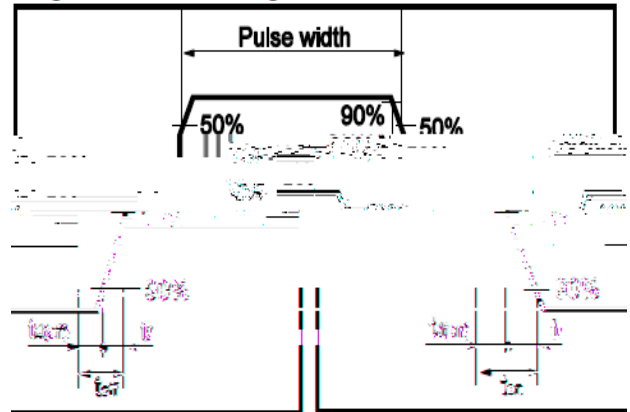


Fig.5 Avalanche Measurement Circuit

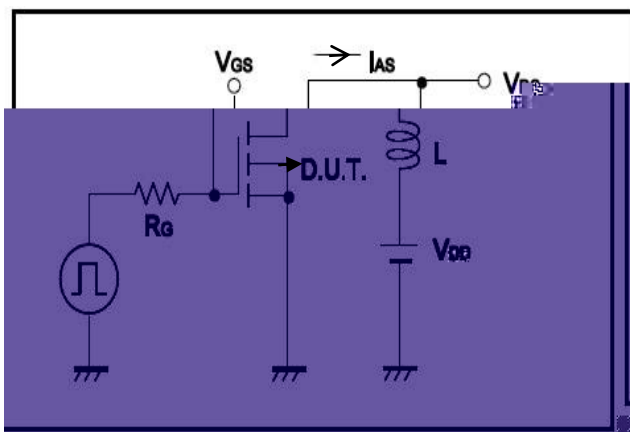
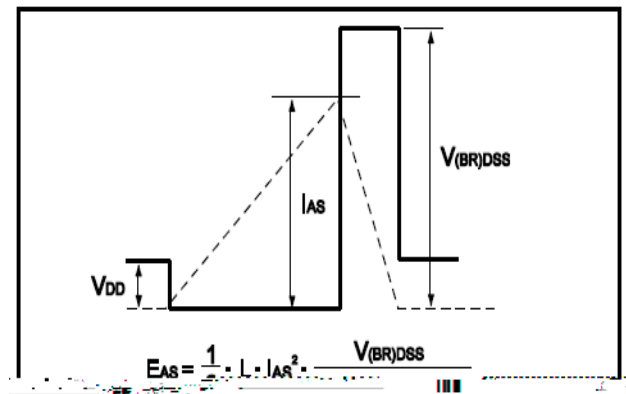


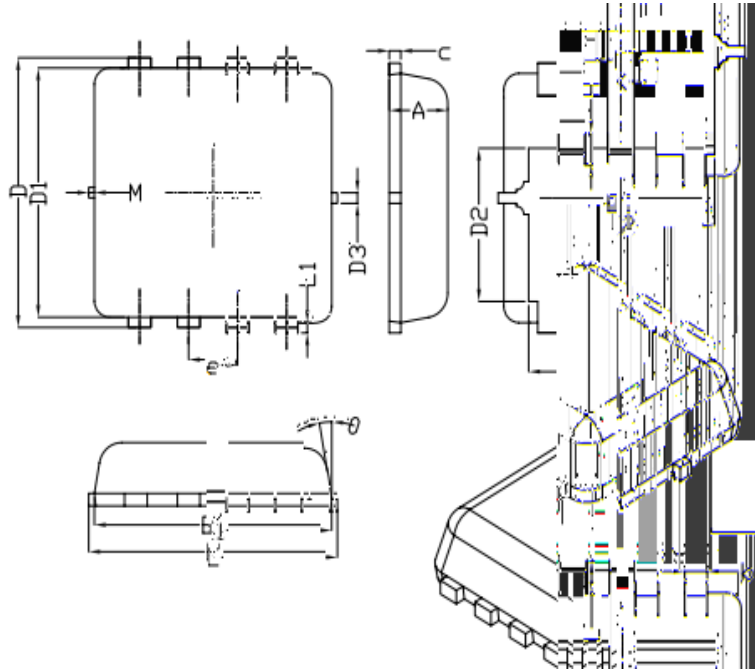
Fig.6 Avalanche Waveform





sions DFN5x6

Unit mm



| SYMBOL | DIMENSIONAL REQMTS |      |      |
|--------|--------------------|------|------|
|        | MIN                | NOM  | MAX  |
| A      | 0.70               | 0.75 | 0.80 |
| B      | 0.35               | 0.25 | 0.25 |
| C      | 0.15               | 0.25 | 0.25 |
| D1     | 0.35               | 0.35 | 0.35 |
| D2     | 0.40               | 0.40 | 0.40 |
| D3     | 0.30               | 0.30 | 0.30 |
| L1     | 3.50               | 3.40 | 3.40 |
| L2     | 3.00               | 3.15 | 3.20 |
| L      | 0.60 BSC           | 0.60 | 0.60 |
| e      | 0.30               | 0.30 | 0.50 |
| L      | 0.30               | 0.40 | 0.50 |
| L1     | ---                | 0.13 | ---  |
| K      | ---                | 0.30 | ---  |
| M      | ---                | 0.10 | ---  |
| d      | ---                | ---  | ---  |

\* Not specific