



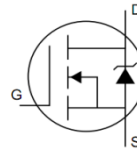
3

The ZM2305T combines advanced trench MOSFET technology with a low resistance package to provide extremely low RDS(ON) . This device is ideal for load switch and battery protection applications.

2

high cell density Trench technology  
 DS(ON) to minimize conductive loss

Product Summary



nd Synchronous Rectifier

|                           |           |
|---------------------------|-----------|
| Part NO.                  | ZM2305T   |
| Marking                   | 2305      |
| Packing Information       | REEL TAPE |
| Basic ordering unit (pcs) | 3000      |

T<sub>c</sub> =25

| Parameter                       | Symbol                | Rating     | Unit |
|---------------------------------|-----------------------|------------|------|
| Drain-Source Voltage            | V <sub>DS</sub>       | -20        | V    |
| Gate-Source Voltage             | V <sub>GS</sub>       | ±12        | V    |
| Continuous Drain Current        | I <sub>D@TC=25</sub>  | -5.8       | A    |
|                                 | I <sub>D@TC=75</sub>  | -4.4       | A    |
|                                 | I <sub>D@TC=100</sub> | -3.7       | A    |
| Pulsed Drain Current            | I <sub>DM</sub>       | -12        | A    |
| Total Power Dissipation         | P <sub>D</sub>        | 10         | W    |
| Total Power Dissipation(TA=25 ) | P <sub>D@TA=25</sub>  | 0.7        | W    |
| Operating Junction Temperature  | T <sub>J</sub>        | -55 to 150 |      |
| Storage Temperature             | T <sub>STG</sub>      | -55 to 150 |      |
| Single Pulse Avalanche Energy   | E <sub>AS</sub>       | 45         | mJ   |

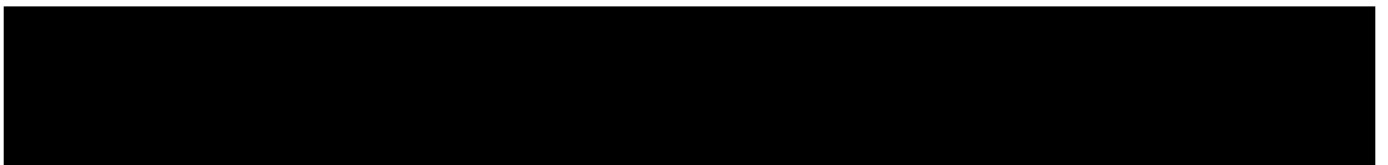






Fig.7 Switching Time Measurement Circuit

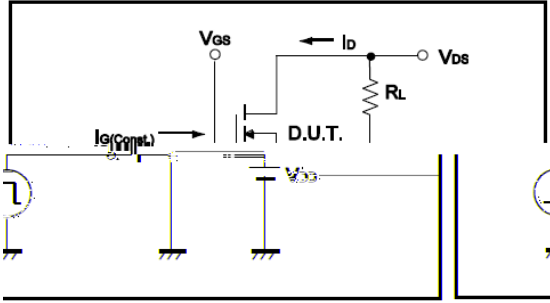


Fig.8 Gate Charge Waveform

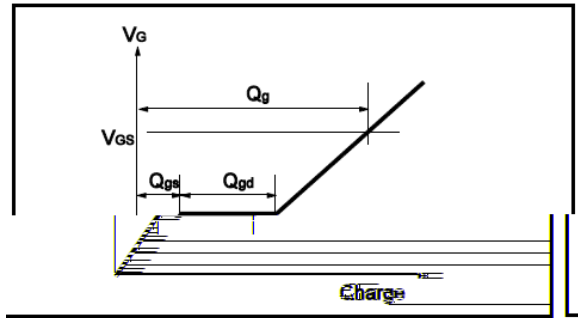


Fig.9 Switching Time Measurement Circuit

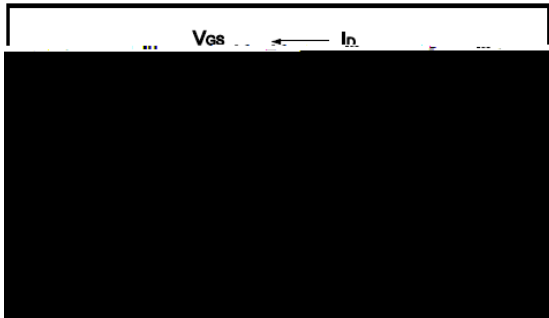


Fig.10 Gate Charge Waveform

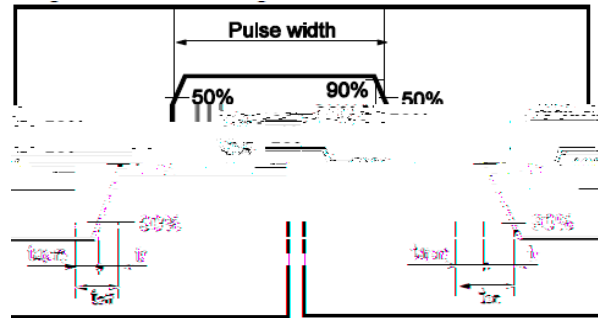


Fig.11 Avalanche Measurement Circuit

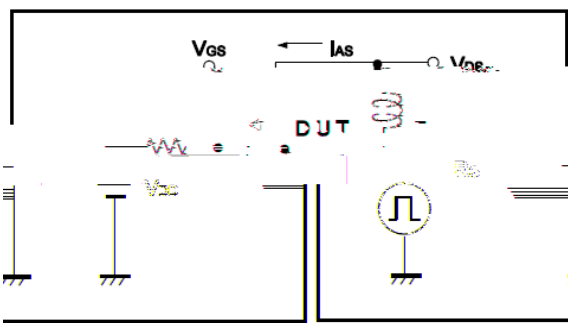
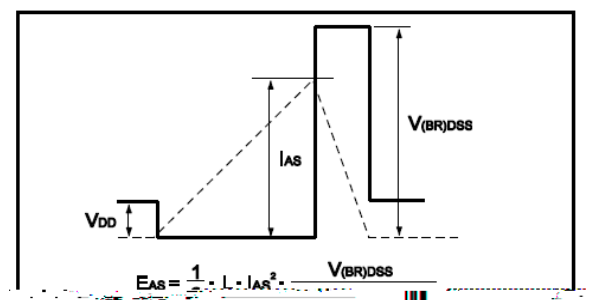


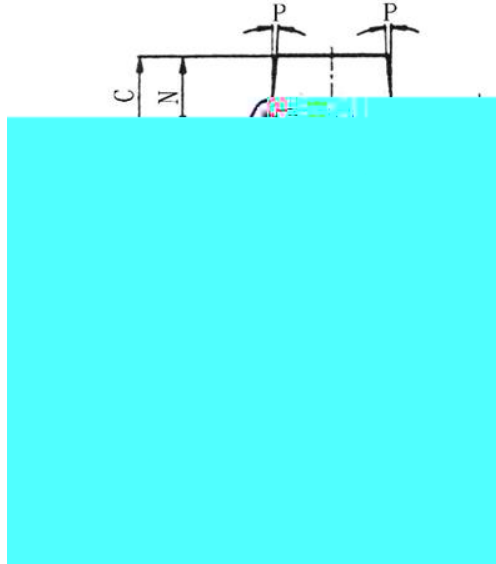
Fig.12 Avalanche Waveform





(SOT23)

Unit mm



| SYMBOL | min  | nom  | max  |
|--------|------|------|------|
| A      | 2.70 | 2.9  | 3.10 |
| B      | 1.15 | 1.3  | 1.50 |
| C      |      |      | 1.30 |
| D      | 0.35 | 0.4  | 0.55 |
| E      | 2.20 | 2.4  | 2.70 |
| G      | 1.70 | 1.9  | 2.10 |
| H      | 0.85 | 0.95 | 1.05 |
| J      | 0.05 | 0.10 | 0.20 |
| K      | 0.00 |      | 0.10 |
| L      | 0.45 | 0.55 | 0.65 |
| M      | 0.20 |      |      |
| N      | 0.90 | 1.00 | 1.20 |
| P      |      | 7°   |      |