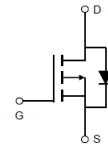




Product Summary

The ZM030P02N combines advanced trench MOSFET technology with a low resistance package to provide extremely low $R_{DS(ON)}$.



$$V_{DS} = -20V$$

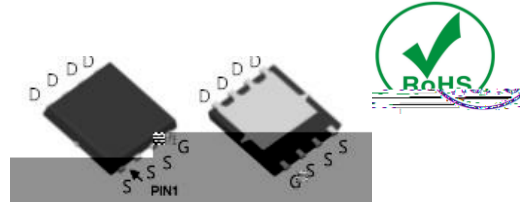
$$R_{DS(ON)} = 3.5m\Omega$$

$$I_D = -90A$$

Trench technology

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

Load Switches
DC/DC



DFN5*6

| | |
|---------------------------|-----------|
| Part NO. | ZM030P02N |
| Marking | ZM030P02 |
| Packing Information | REEL TAPE |
| Basic ordering unit (pcs) | 3000 |

$T_C = 25$

| Parameter | Symbol | Rating | Unit |
|--|---------------|------------|------|
| Drain-Source Voltage | V_{DS} | -20 | V |
| Gate-Source Voltage | V_{GS} | 12 | V |
| Continuous Drain Current($T_C=25$) | $I_D@T_C=25$ | -90 | A |
| | $I_D@T_C=75$ | -68 | A |
| | $I_D@T_C=100$ | -56 | A |
| Pulsed Drain Current | I_{DM} | -200 | A |
| Total Power Dissipation | P_D | 60 | W |
| Total Power Dissipation($T_A=25$) | $P_D@T_A=25$ | 2.8 | W |
| Operating Junction Temperature | T_J | -55 to 150 | |
| Storage Temperature | T_{STG} | -55 to 150 | |
| Single Pulse Avalanche Energy@ $L=0.1mH$ | E_{AS} | 300 | mJ |



layer 1inch square copper plate

Fig.1 Gate-Charge Characteristics

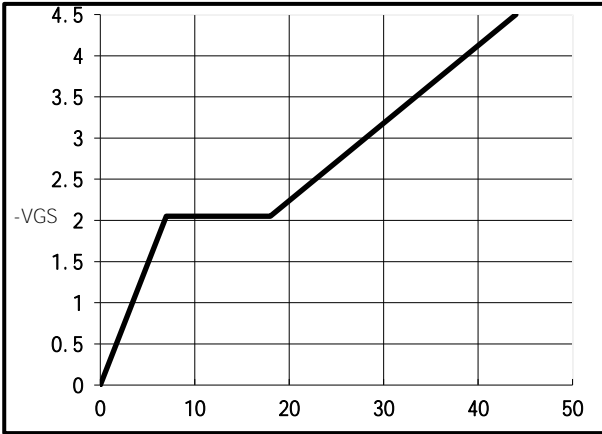


Fig.2 Capacitance Characteristics

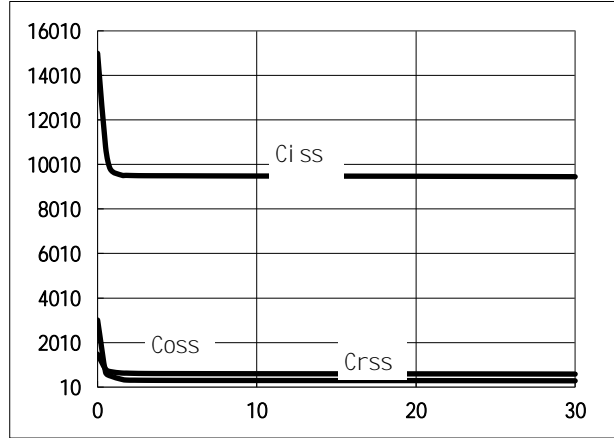


Fig.2 Power Dissipation

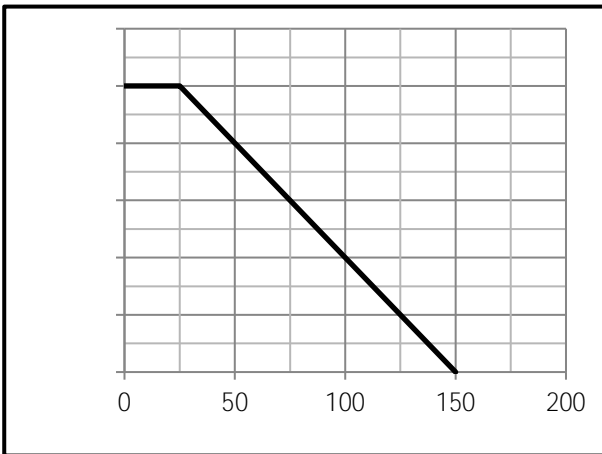


Fig.3 Typical output Characteristics

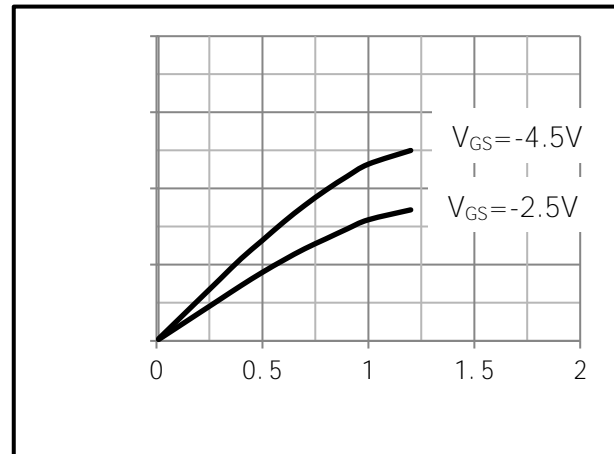


Fig.4 Threshold Voltage V.S Junction Temperature

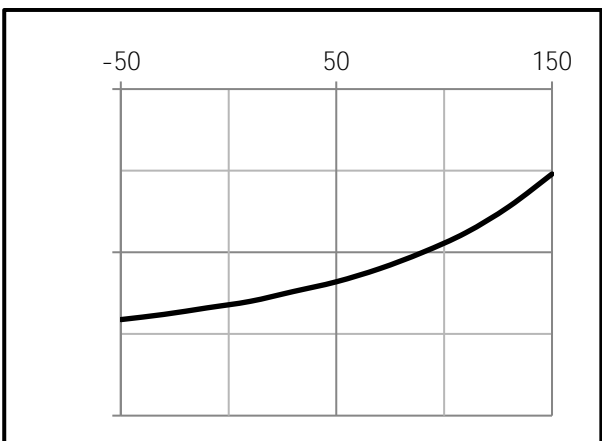


Fig.5 Resistance V.S Drain Current

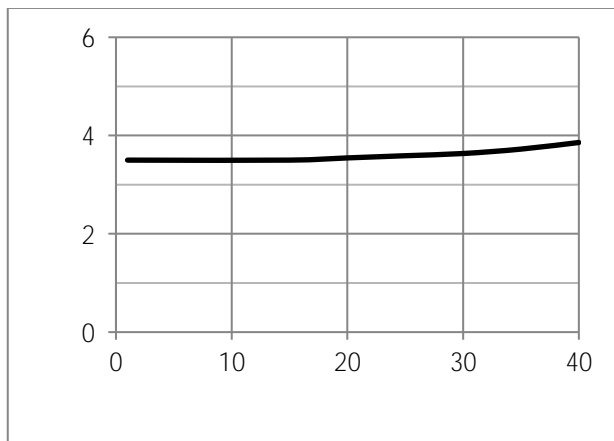




Fig.6 On-Resistance VS Gate Source Voltage

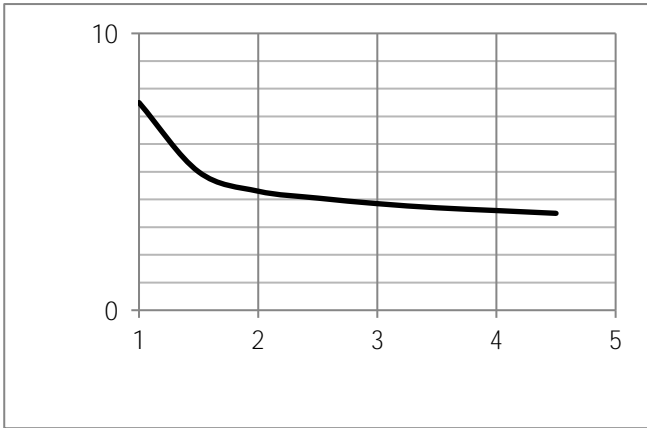


Fig.7 On-Resistance V.S Junction Temperature

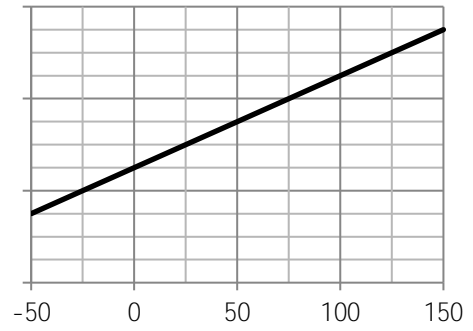


Fig.8 Switching Time Measurement Circuit

Fig.9 Gate Charge Waveform

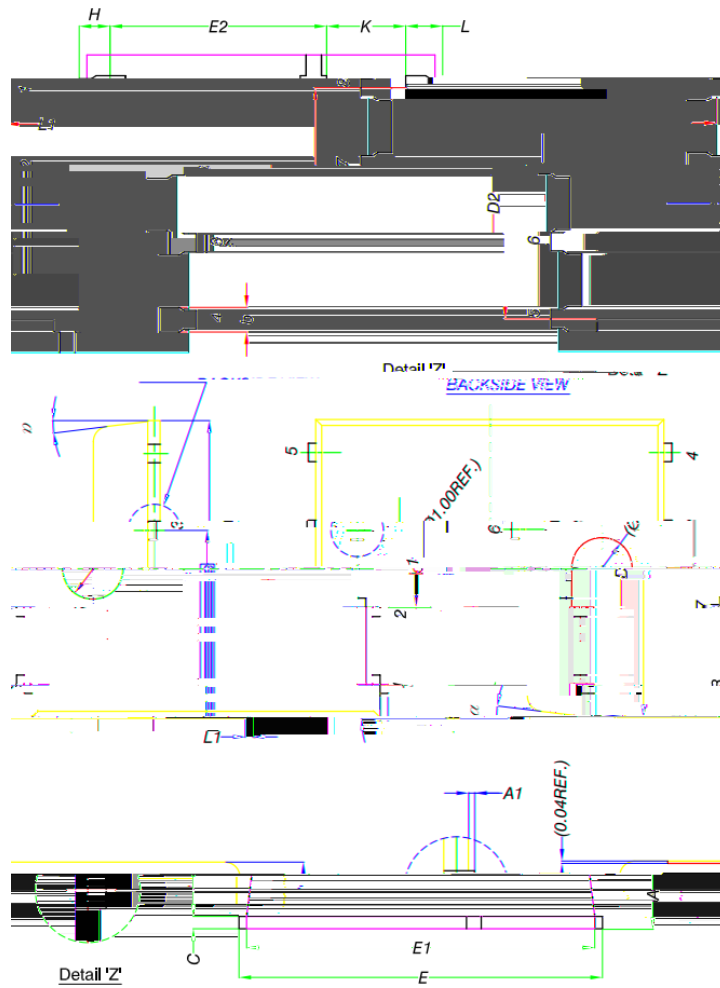
Fig.10 Switching Time Measurement Circuit

Fig.11 Gate Charge Waveform



sions DFN5x6

Unit mm



MILLIMETERS

| | | | |
|----|----------|------|------|
| D1 | 4.80 | 4.90 | 5.00 |
| D2 | 3.67 | 3.87 | 3.96 |
| | 5.90 | 6.00 | 6.10 |
| E1 | 5.20 | 5.25 | |
| E2 | 7.20 | 7.50 | |
| e | 1.27 BSC | | |
| | 0.41 | 0.51 | 0.61 |
| | 1.10 | | |
| | | 0.51 | 0.61 |
| | | | 0.7 |
| | | 0.51 | 0.06 |
| | | | 12° |