

The GreenMOS[®] high voltage MOSFET utilizes charge balance technology to achieve outstanding low on-resistance and lower gate charge. It is engineered to minimize conduction loss, provide superior switching performance and robust avalanche capability.

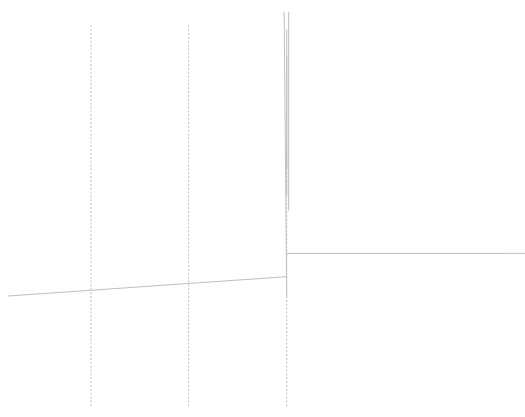

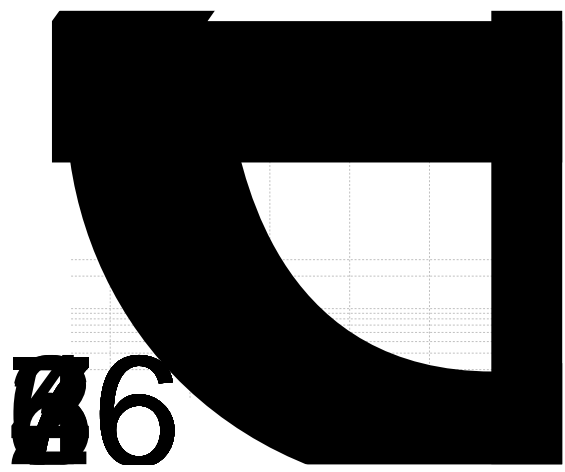
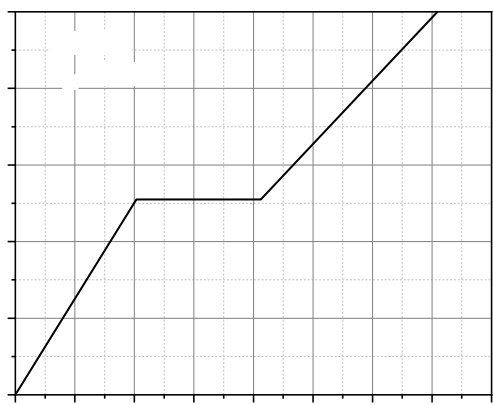

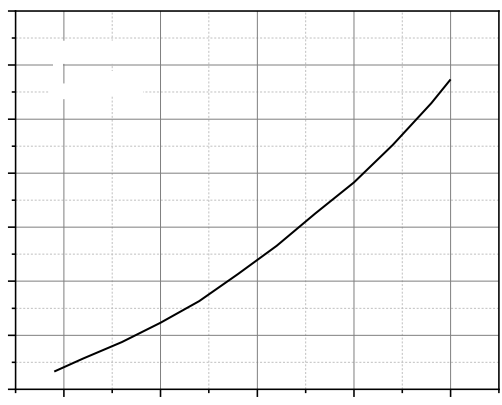
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| Parameter | Value | Unit |
|--------------------------------|-------|------|
| $V_{DS, min} @ T_{j(max)}$ | 650 | V |
| $I_D, pulse$ | 60 | A |
| $R_{DS(ON), max} @ V_{GS}=10V$ | 0.18 | |
| Q_g | 35.5 | nC |

| Product Name | Package | Marking |
|--------------|---------|---------|
| OSG60R180ISF | TO262 | OSG60R |

Dynamic Characteristics

Electrical Characteristics Diagrams

| | |
|--|---|
|  <p>Figure 1. Typ. output characteristics</p> |  <p>Figure 2. Typ. transfer characteristics</p> |
|  <p>Figure 3. Typ. capacitances</p> |  <p>Figure 4. Typ. gate charge</p> |
|  <p>Figure 5. Drain-source breakdown voltage</p> |  <p>Figure 6. Drain-source on-state resistance</p> |

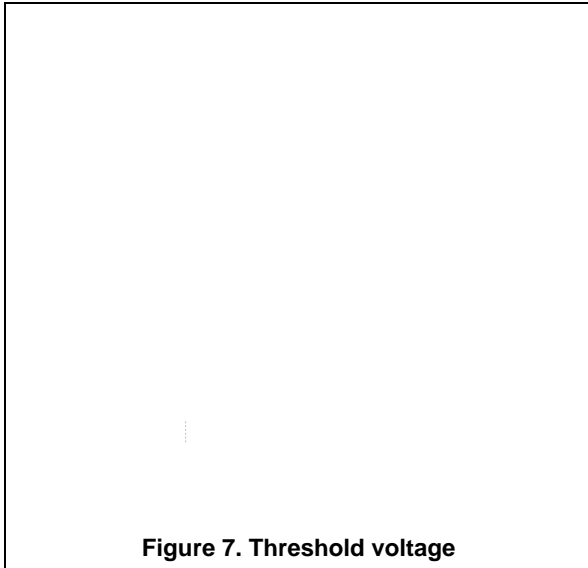


Figure 7. Threshold voltage

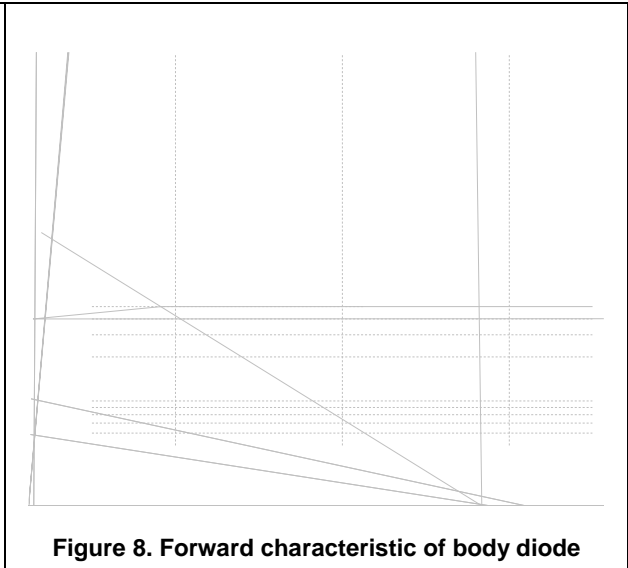


Figure 8. Forward characteristic of body diode

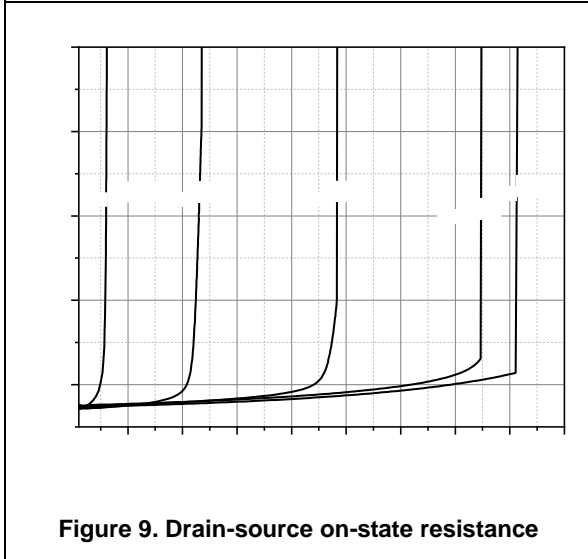


Figure 9. Drain-source on-state resistance

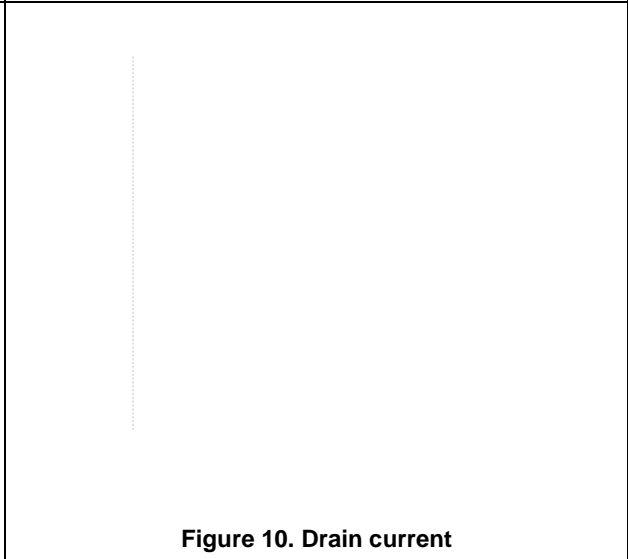


Figure 10. Drain current

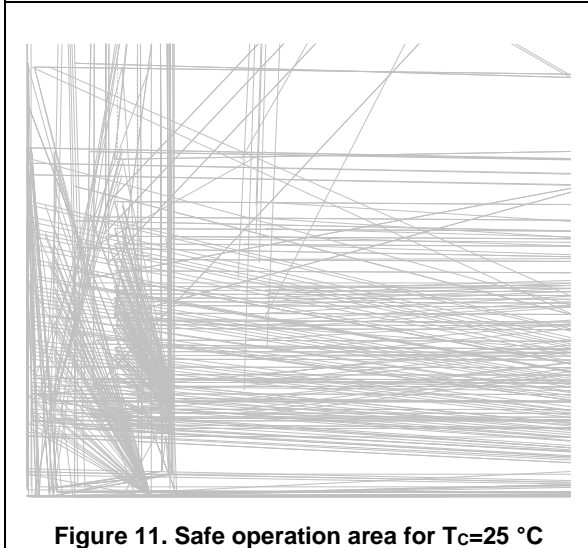


Figure 11. Safe operation area for T_c=25 °C

Test circuits and waveforms

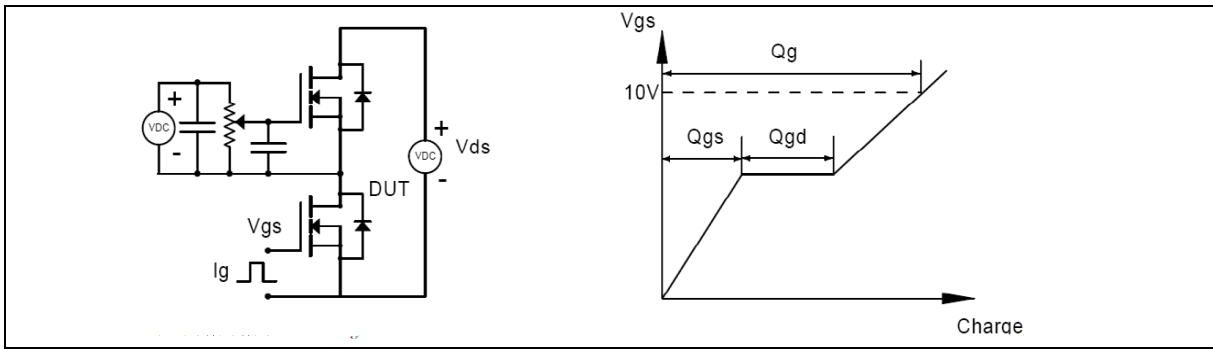


Figure 1. Gate charge test circuit & waveform



Figure 2. Switching time test circuit & waveforms

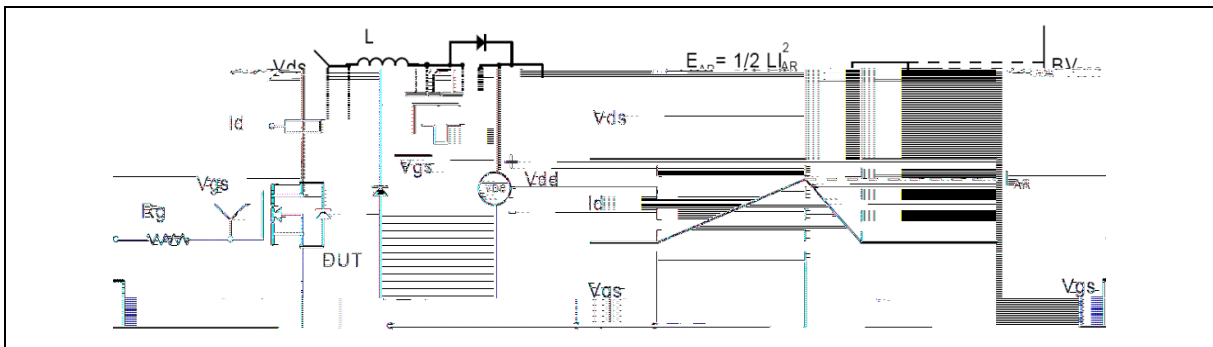


Figure 3. Unclamped inductive switching (UIS) test circuit & waveforms

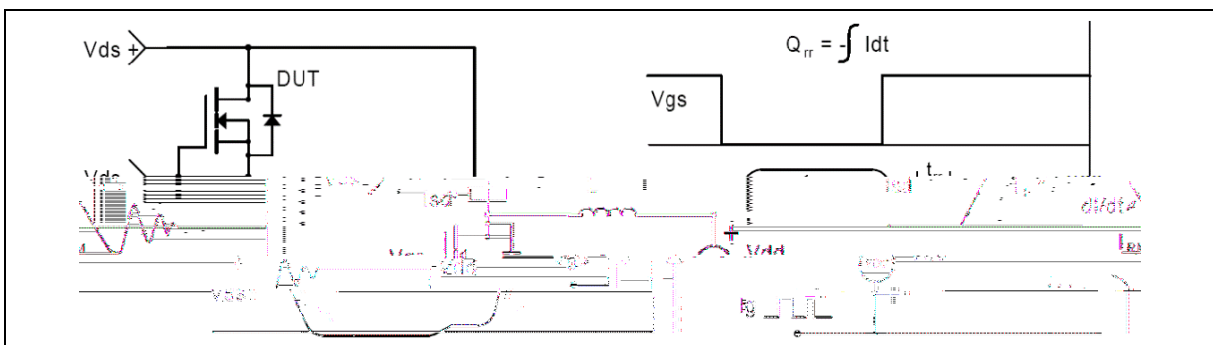
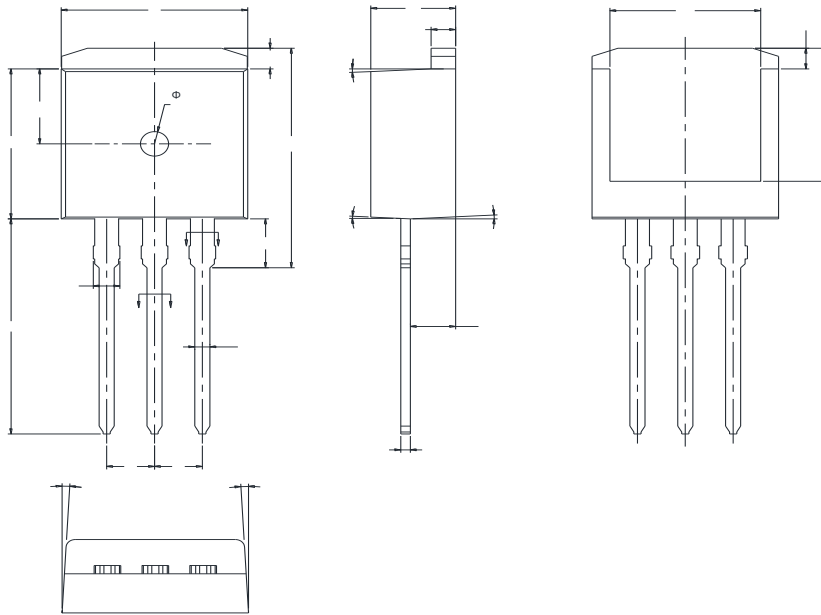


Figure 4. Diode reverse recovery test circuit & waveforms

Package Information



| Symbol | mm | | |
|--------|----------|-------|-------|
| | Min | Nom | Max |
| A | 4.40 | 4.50 | 4.60 |
| A1 | 2.20 | 2.40 | 2.60 |
| b | 0.76 | - | 0.89 |
| b1 | 0.75 | 0.80 | 0.85 |
| b2 | 1.23 | - | 1.37 |
| b3 | 1.22 | 1.27 | 1.32 |
| c | 0.47 | - | 0.60 |
| c1 | 0.46 | 0.51 | 0.56 |
| c2 | 1.25 | 1.30 | 1.35 |
| D | 9.10 | 9.20 | 9.30 |
| D1 | 8.00 | - | - |
| E | 9.80 | 9.90 | 10.00 |
| E1 | 7.80 | - | - |
| e | 2.54 BSC | | |
| L | 12.90 | 13.20 | 13.50 |
| L1 | 2.80 | 3.00 | 3.20 |
| L2 | 1.17 | 1.27 | 1.40 |
| L3 | 4.60 REF | | |
| W | 13.25 | - | 14.00 |
| | 1° | 3° | 5° |

Version 1: TO262-J outline dimension

Ordering Information

| Package Type | Units/ Tube | Tubes/ Inner Box | Units/ Inner Box | Inner Boxes/ Carton Box | Units/ Carton Box |
|--------------|-------------|------------------|------------------|-------------------------|-------------------|
| TO262-J | 50 | 20 | 1000 | 5 | 5000 |

Product Information

| Product | Package | Pb Free | RoHS | Halogen Free |
|--------------|---------|---------|------|--------------|
| OSG60R180ISF | TO262 | yes | yes | yes |

