



$T_C = 25$

| Parameter | Symbol | Rating | Unit |
|-----------------------------------|------------------------|----------|------|
| Drain-Source Voltage | V_{DS} | 40 | V |
| Gate-Source Voltage | V_{GS} | ± 20 | V |
| Continuous Drain Current | $I_{D@TC=25^\circ C}$ | 100 | A |
| | $I_{D@TC=75^\circ C}$ | 76 | A |
| | $I_{D@TC=100^\circ C}$ | 63 | A |
| Pulsed Drain Current ^① | I_{DM} | 300 | A |
| Total Power | | | |

**Thermal resistance**

| Parameter | Symbol | Min. | Typ. | Max. | Unit |
|---|------------|------|------|------|---------------|
| Thermal resistance, junction - case | R_{thJC} | - | - | 1.1 | $^{\circ}C/W$ |
| Thermal resistance, junction - ambient | R_{thJA} | - | - | 60 | $^{\circ}C/W$ |
| Soldering temperature, wave soldering for 10s | T_{sold} | - | - | 265 | $^{\circ}C$ |

| Parameter | Symbol | Condition | Min. | Typ. | Max. | Unit |
|-----------------------------------|--------------|-------------------------------|------|------|-----------|-----------|
| Drain-Source Breakdown Voltage | BV_{DSS} | $V_{GS}=0V, I_D=250\mu A$ | 40 | | | V |
| Gate Threshold Voltage | $V_{GS(TH)}$ | $V_{GS}=V_{DS}, I_D=250\mu A$ | 1.2 | | 2.5 | V |
| Drain-Source Leakage Current | I_{DSS} | $V_{DS}=40V, V_{GS}=0V$ | | | 1.0 | μA |
| Gate- Source Leakage Current | I_{GSS} | $V_{GS}=\pm 20V, V_{DS}=0V$ | | | ± 100 | nA |
| Static Drain-source On Resistance | | $V_{GS}=10V, I_D=24A$ | | 3.1 | 4 | $m\Omega$ |
| | | $V_{GS}=4.5V, I_D=12A$ | | 4.5 | 5.8 | $m\Omega$ |
| Forward Trans conductance | g_{FS} | $V_{DS}=25V, I_D=10A$ | | 16 | | S |
| Source-drain voltage | V_{SD} | $I_S=24A$ | | | 1.28 | V |

| Parameter | Symbol | Condition | Min. | Typ. | Max. | Unit |
|-------------------|-----------|------------|------|------|------|------|
| Input capacitance | C_{iss} | $f = 1MHz$ | | | | |



Fig.1 Power Dissipation

Fig.2 Typical output Characteristics

Fig.3 Threshold Voltage V.S Junction Temperature Fig.4 Resistance V.S Drain Current

Fig.7 Switching Time Measurement Circuit

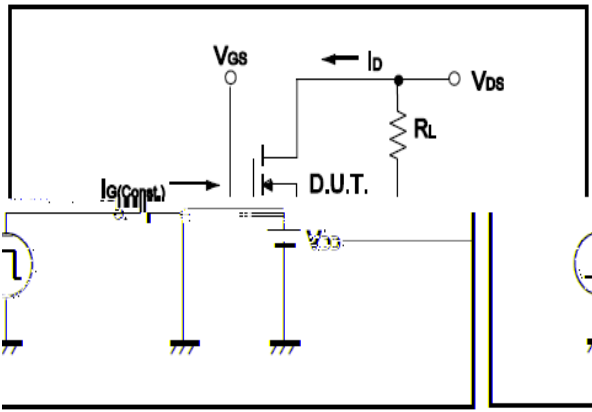


Fig.8 Gate Charge Waveform

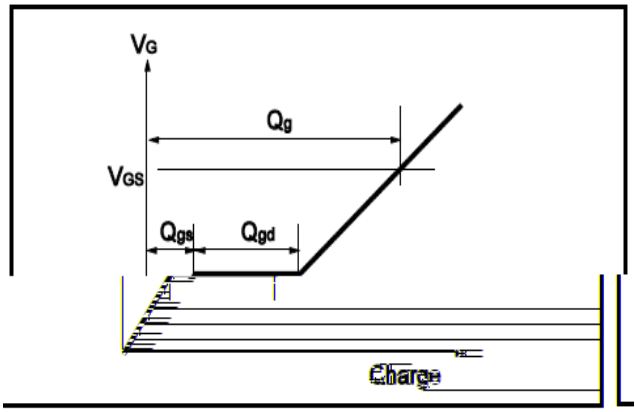


Fig.9 Switching Time Measurement Circuit

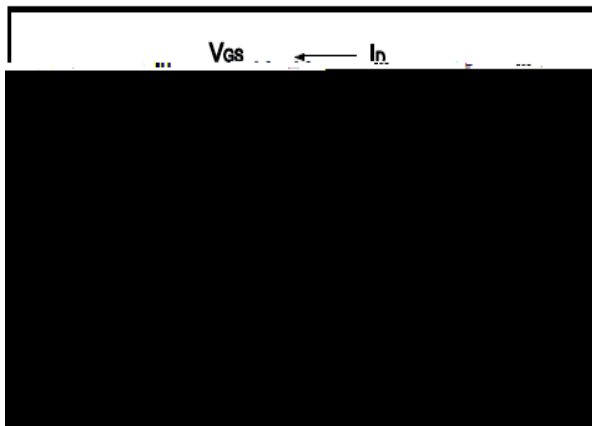


Fig.10 Gate Charge Waveform

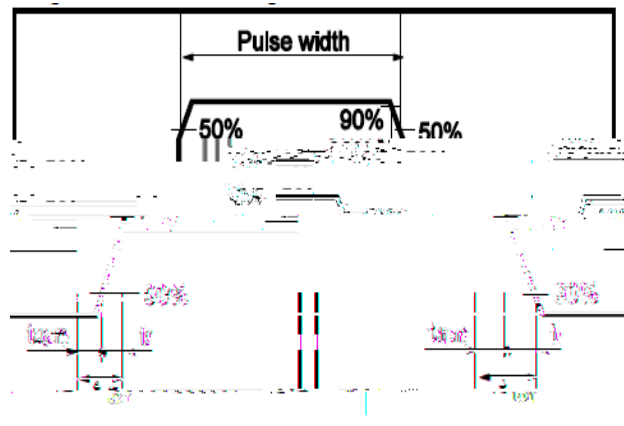


Fig.11 Avalanche Measurement Circuit

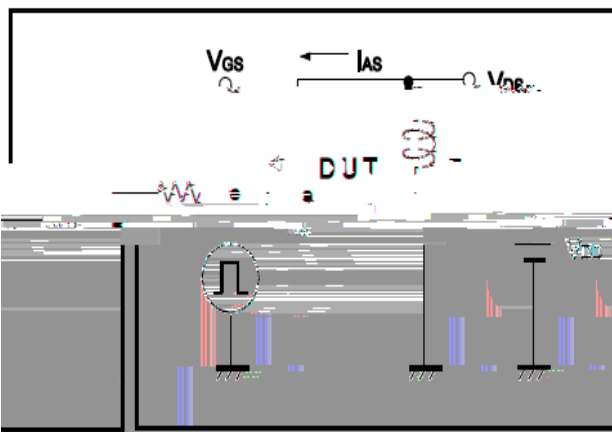


Fig.12 Avalanche Waveform

