

**Thermal resistance**

| Parameter | Symbol | Min. | Typ. | Max. | Unit |
|---|------------|------|------|------|-------|
| Thermal resistance, junction - case | R_{thJC} | - | - | 2.8 | ° C/W |
| Thermal resistance, junction - ambient | R_{thJA} | - | - | 62 | ° C/W |
| Soldering temperature, wave soldering for 10s | T_{sold} | - | - | 265 | ° C |

Electronic Characteristics

| Parameter | Symbol | Condition | Min. | Typ. | Max. | Unit |
|-----------------------------------|--------------|-----------------------------------|------|------|-----------|---------|
| Drain-Source Breakdown Voltage | BV_{DSS} | $V_{GS} = 0V, I_D = 250\mu A$ | 120 | | | V |
| Gate Threshold Voltage | $V_{GS(TH)}$ | $V_{GS} = V_{DS}, I_D = 250\mu A$ | 2.0 | | 4.0 | V |
| Drain-Source Leakage Current | I_{DSS} | $V_{DS} = 120V, V_{GS} = 0V$ | | | 1.0 | μA |
| Gate- Source Leakage Current | I_{GSS} | $V_{GS} = \pm 20V, V_{DS} = 0V$ | | | ± 100 | nA |
| Static Drain-source On Resistance | $R_{DS(ON)}$ | $V_{GS} = 10V, I_D = 25A$ | | 6.0 | 7.8 | m |
| Forward Transconductance | g_{FS} | $V_{DS} = 25V, I_D = 10A$ | | 40 | | S |

Source-



Fig.1 Gate-Charge Characteristics

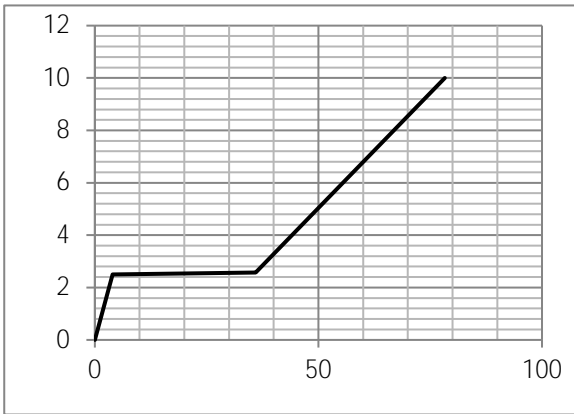


Fig.2 Capacitance Characteristics

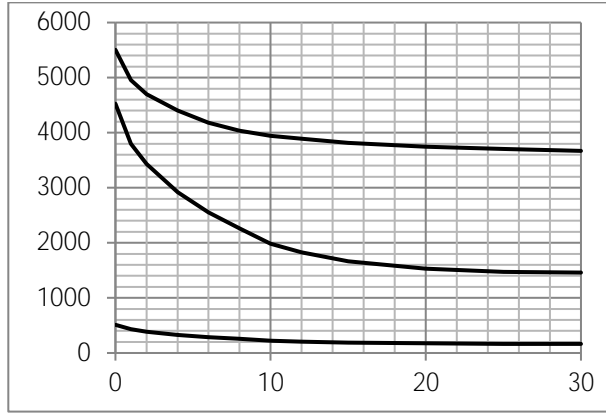


Fig.3 Power Dissipation

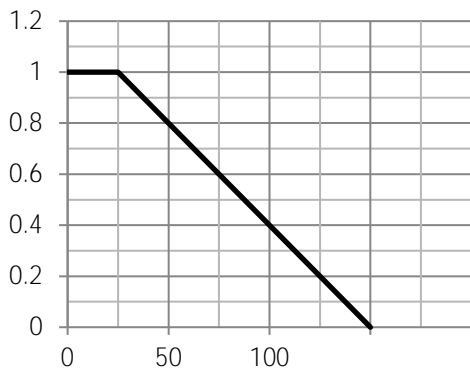


Fig.4 Typical output Characteristics

Fig.5 Threshold Voltage V.S Junction Temperature

Fig.6 Resistance V.S Drain Current



Fig.7 On-Resistance VS Gate Source Voltage

Fig.8 On-Resistance V.S Junction Temperature

Fig.9 SOA Maximum Safe Operating Area

Fig.10 ID-Junction Temperature

Fig.11 Switching Time Measurement Circuit



Fig.13 Switching Time Measurement Circuit

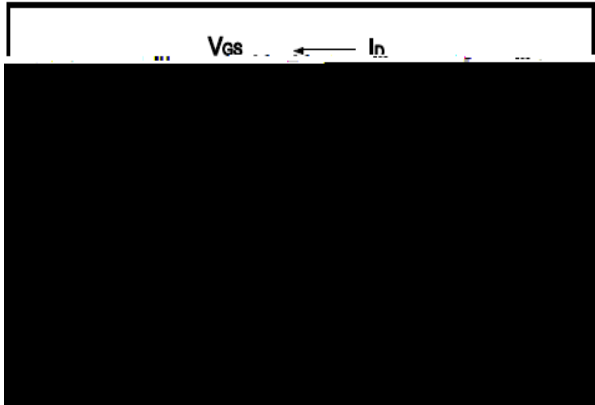


Fig.14 Gate Charge Waveform

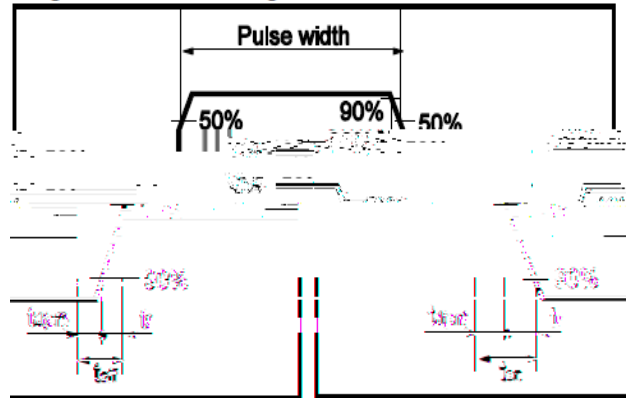


Fig.15 Avalanche Measurement Circuit

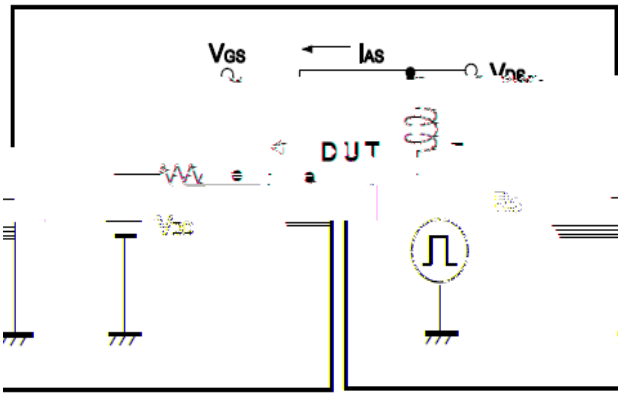


Fig.16 Avalanche Waveform

