



**Ordering Information:**

**Absolute Maximum Ratings**  $T_C=25$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DS}$	30	V
Gate-Source Voltage	$V_{GS}$	20	V
Continuous Drain Current	$I_{D@TC=25}$	240	A
	$I_{D@TC=75}$	182	A
	$I_{D@TC=100}$	151	A

Pulsed Drain Current



Single Pulse Avalanche Energy ( $L=0.1\text{mH}, V_{GS}=10\text{V}, R_g=25 - J=25$ )	$E_{AS}$	360	mJ
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**Thermal resistance**

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	$R_{thJC}$	-	-	0.8	$^{\circ}\text{C/W}$
Thermal resistance, junction - ambient	$R_{thJA}$	-	-	40	$^{\circ}\text{C/W}$
Soldering temperature, wave soldering for 10s	$T_{sold}$	-	-	265	$^{\circ}\text{C}$

**Electronic Characteristics**

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS}=0\text{V}, I_D=250\mu\text{A}$	30			V
Gate Threshold Voltage	$V_{GS(TH)}$	$V_{GS}=V_{DS}, I_D=250\mu\text{A}$	1.2		2.5	V
Drain-Source Leakage Current	$I_{DSS}$	$V_{DS}=30\text{V}, V_{GS}=0\text{V}$			1.0	$\mu\text{A}$
Gate- Source Leakage Current	$I_{GSS}$	$V_{GS}=\pm 20\text{V}, V_{DS}=0\text{V}$			100	nA



Fig.1 Power Dissipation

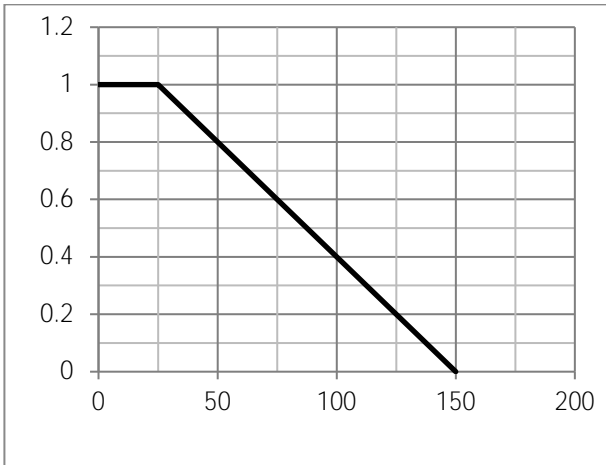


Fig.2 Typical output Characteristics

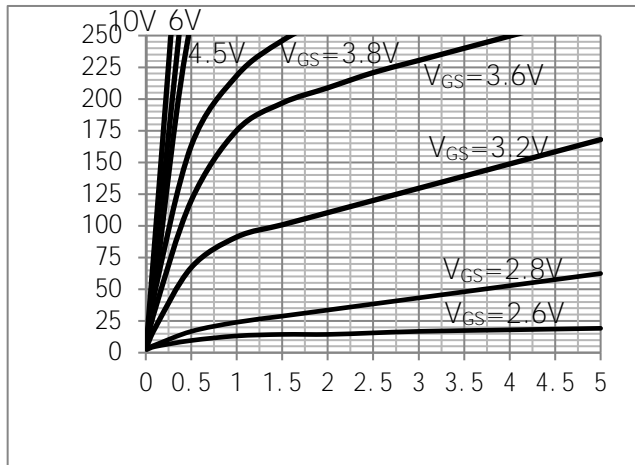


Fig.3 Threshold Voltage V.S Junction Temperature

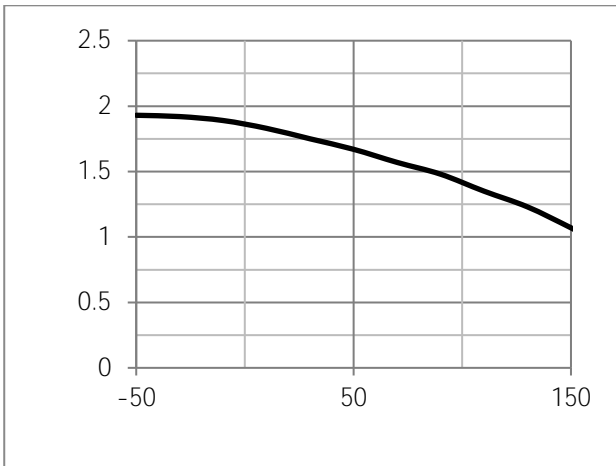


Fig.4 Resistance V.S Drain Current

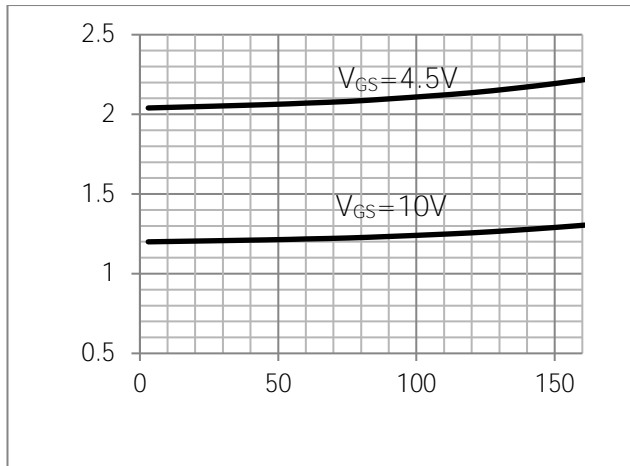


Fig.5 On-Resistance VS Gate Source Voltage

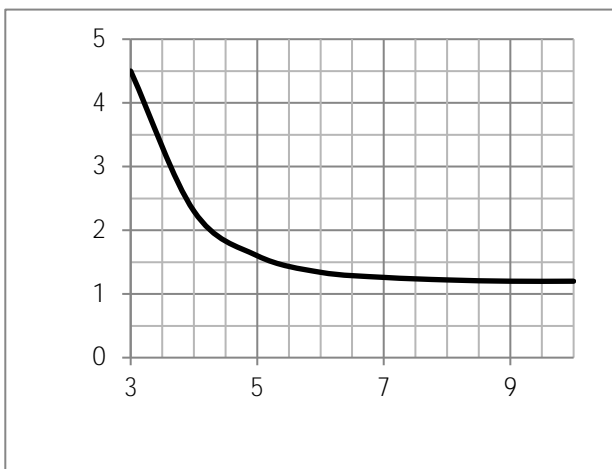


Fig.6 On-Resistance V.S Junction Temperature

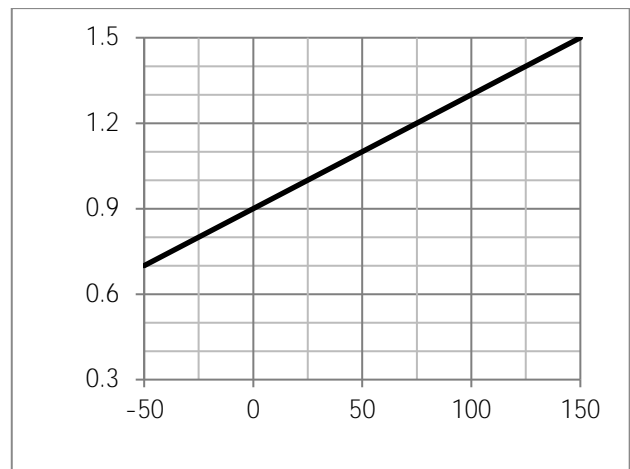




Fig.13 Switching Time Measurement Circuit

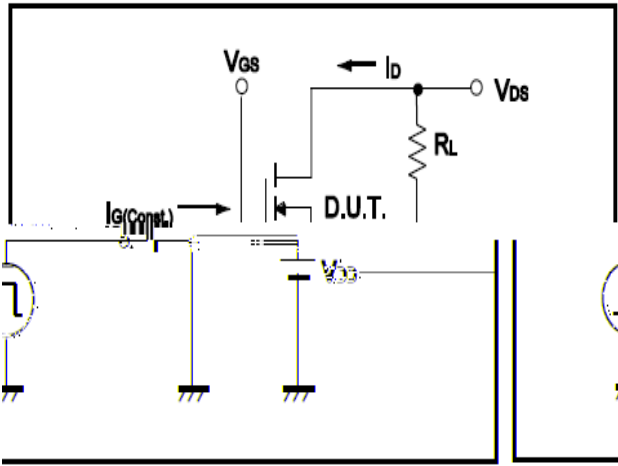


Fig.14 Gate Charge Waveform

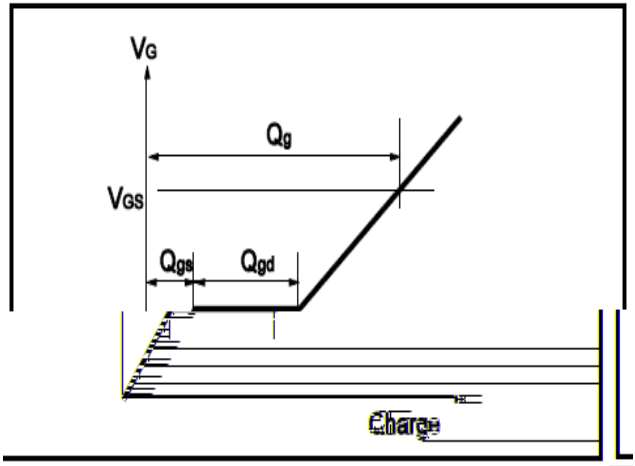


Fig.15 Resistive Switching Test Circuit

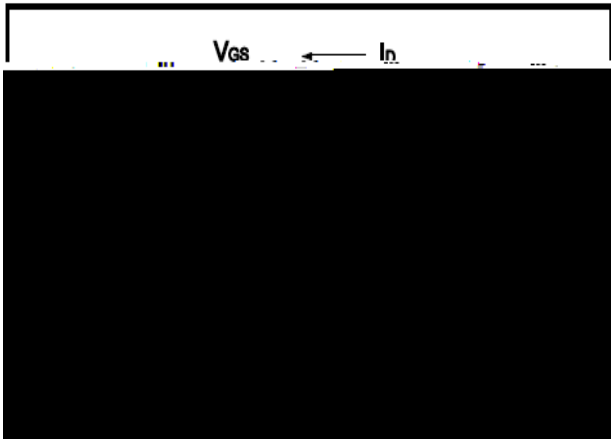


Fig.16 Resistive Switching Test Waveform

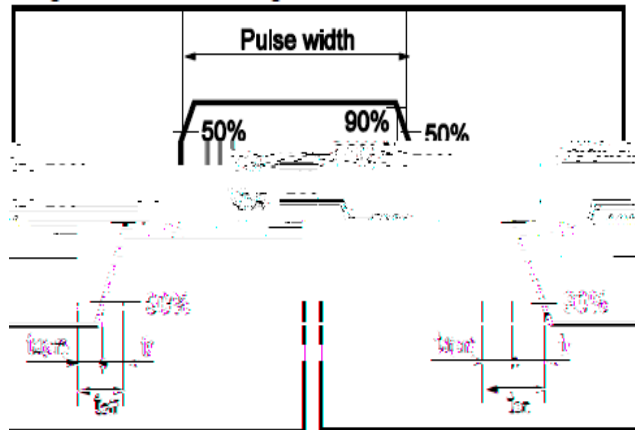


Fig.17 Avalanche Measurement Circuit

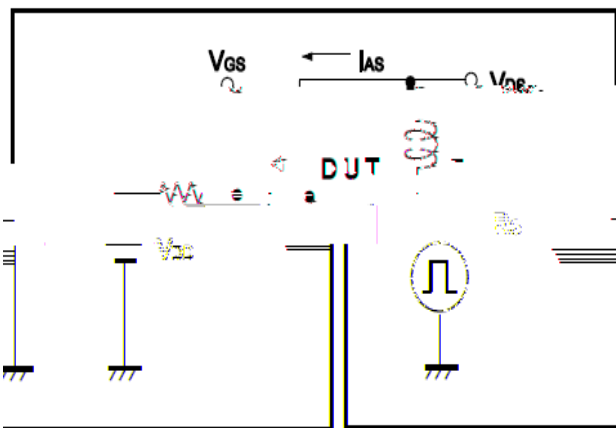
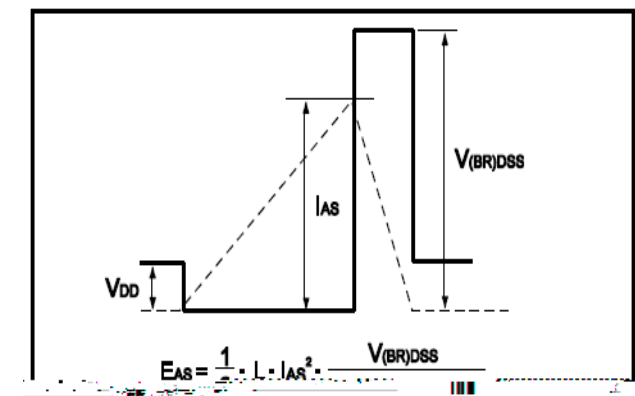


Fig.18 Avalanche Waveform





Dimensions (TO-220)

Unit mm

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					1 .		1 .

