

**Ordering Information:****Absolute Maximum Ratings** $T_C = 25$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	100	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current	$I_{D@TC=25}$	110	A
	$I_{D@TC=75}$	83	A
	$I_{D@TC=100}$	69	A
Pulsed Drain Current	I_{DM}	330	A
Total Power Dissipation	$P_D@TC=25$	85	W
Total Power Dissipation	$P_D@TA=25$	3.4	W
Operating Junction Temperature	T_J	-55 to 150	

**Thermal resistance**

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	R_{thJC}	-	-	1.5	C/W
Thermal resistance, junction - ambient	R_{thJA}	-	-	37	C/W
Soldering temperature, wave soldering for 10s	T_{sold}	-	-	265	C

Body Diode Reverse Recovery Time	t_{rr}	$I_F=20A,$ $di/dt=100A/\mu s$	23	nS
Body Diode Reverse Recovery Charge	Q_{rr}	$I_F=20A,$ $di/dt=100A/\mu s$	120	nC

Note:

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Fig.1 Gate-Charge Characteristics

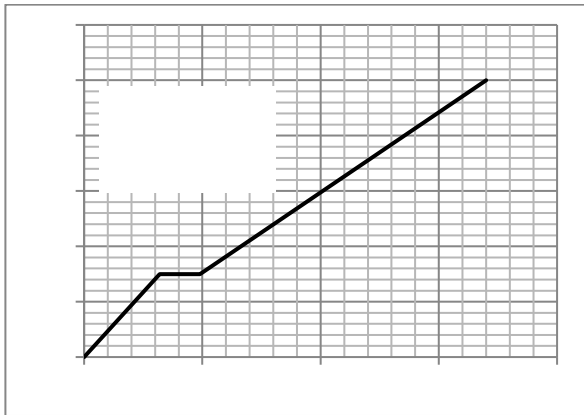


Fig.2 Capacitance Characteristics

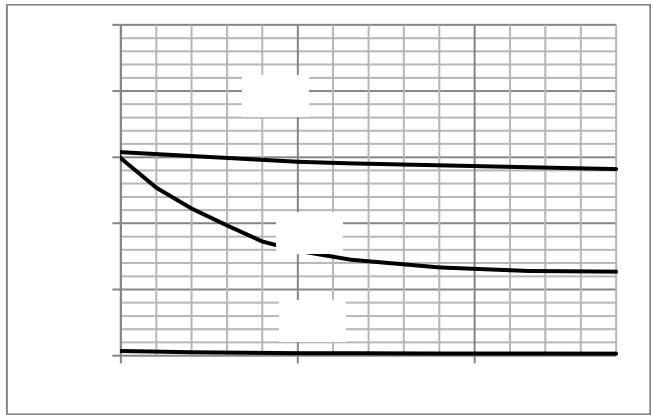


Fig.3 Power Dissipation



Fig.4 Typical output Characteristics

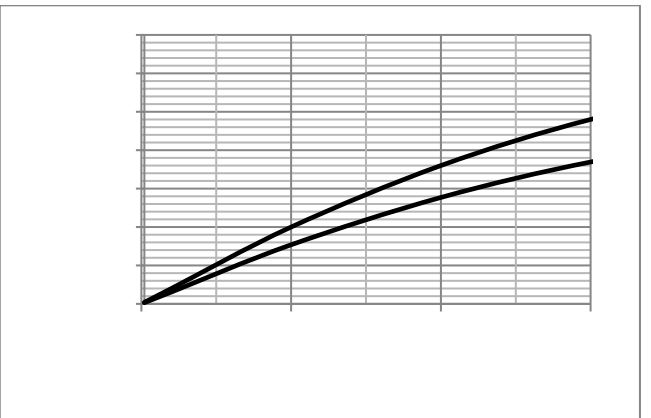


Fig.5 Threshold Voltage V.S Junction Temperature

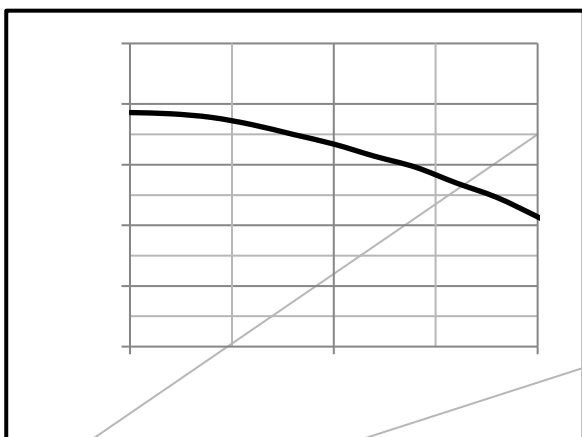
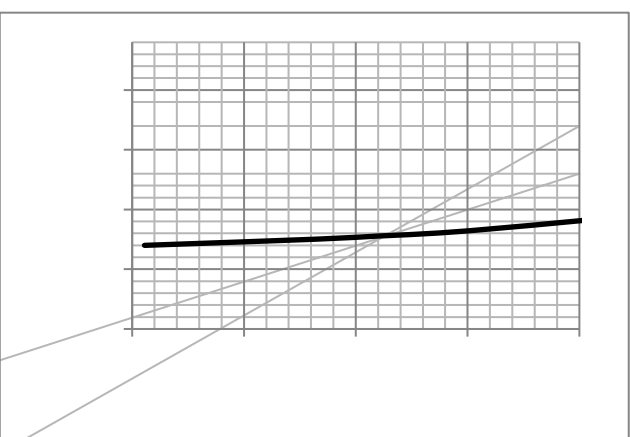


Fig.6 Resistance V.S Drain Current



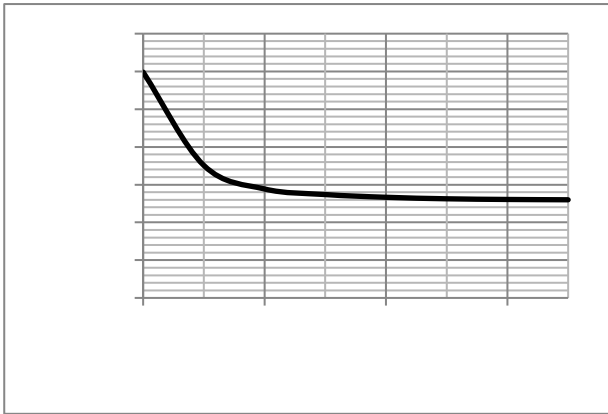


Fig.9 SOA Maximum Safe Operating Area

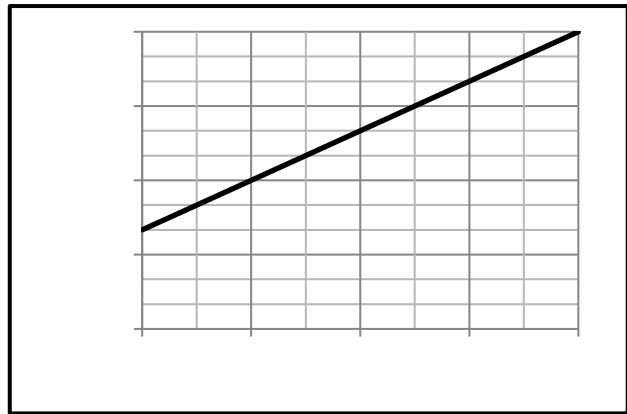


Fig.10 I_D -Junction Temperature

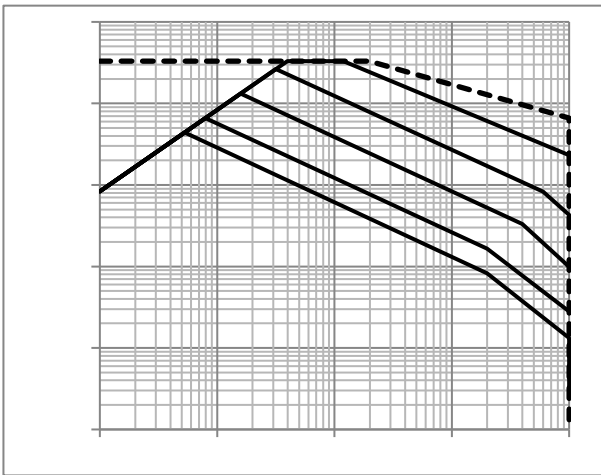


Fig.11 Switching Time Measurement Circuit

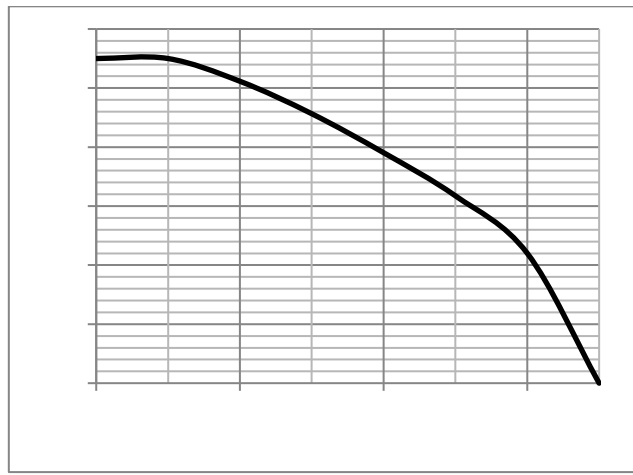


Fig.12 Gate Charge Waveform

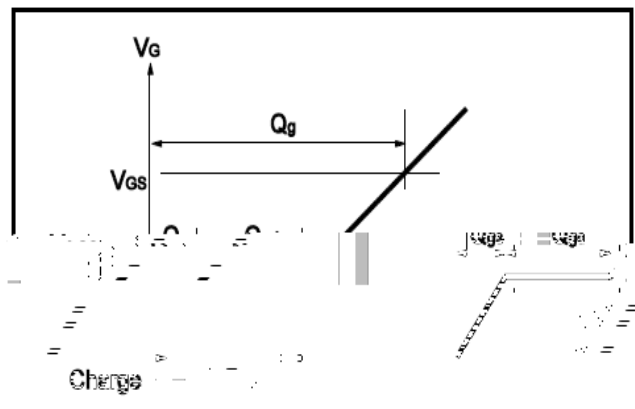
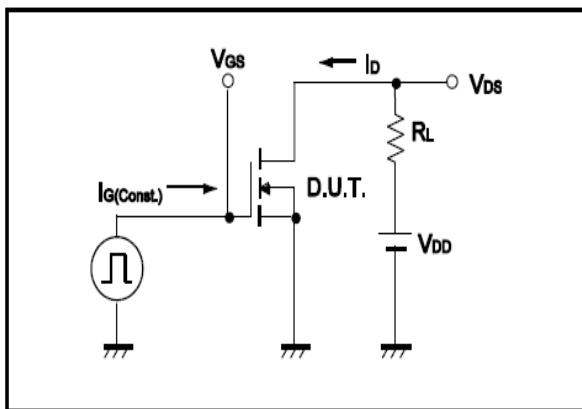


Fig.13 Switching Time Measurement Circuit

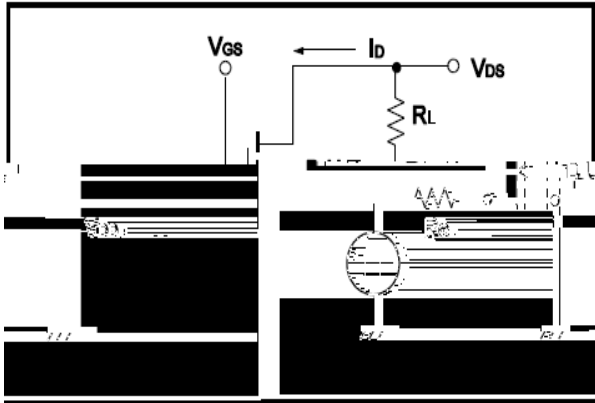


Fig.14 Gate Charge Waveform

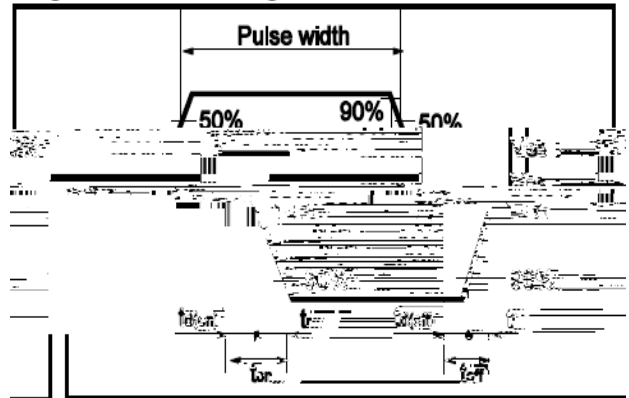


Fig.15 Avalanche Measurement Circuit

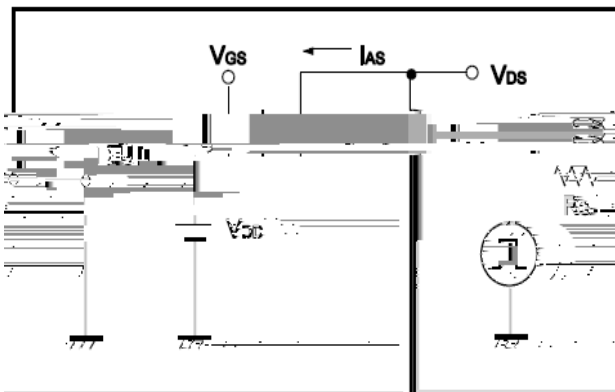


Fig.16 Avalanche Waveform

