

 $T_C = 25$ 

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DS}$	100	V
Gate-Source Voltage	$V_{GS}$	$\pm 20$	V
Continuous Drain Current	$I_{D@T_C=25}$	175	A
	$I_{D@T_C=75}$	133	A
	$I_{D@T_C=100}$	110	A
Pulsed Drain Current	$I_{DM}$	525	A
Total Power Dissipation	$P_D@T_C=25$	104	W
Total Power Dissipation	$P_D@T_A=25$	3.1	W
Operating Junction Temperature	$T_J$	-55 to 175	
Storage Temperature	$T_{STG}$	-55 to 175	
Single Pulse Avalanche Energy	$E_{AS}$		



**Thermal resistance**

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	R <sub>thJC</sub>	-	-	1.2	° C/W
Thermal resistance, junction - ambient	R <sub>thJA</sub>	-	-	40	° C/W
Soldering temperature, wave soldering for 10s	T <sub>sold</sub>	-	-	265	° C

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Drain-Source Breakdown V <sub>DS(BR)</sub> (I <sub>DS</sub> )						

Fig.1 Gate-Charge Characteristics

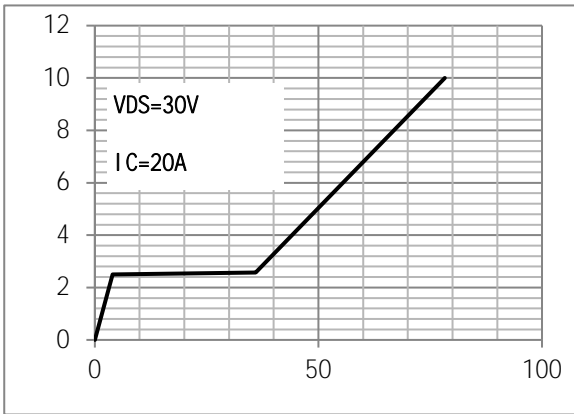


Fig.2 Capacitance Characteristics

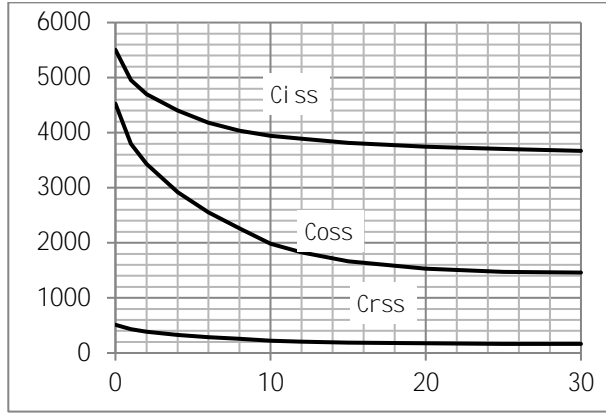


Fig.3 Power Dissipation

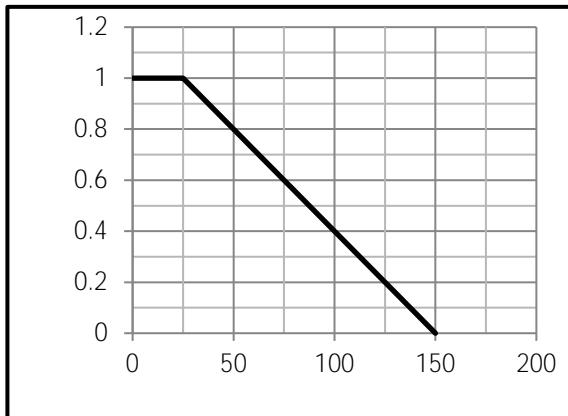


Fig.4 Typical output Characteristics

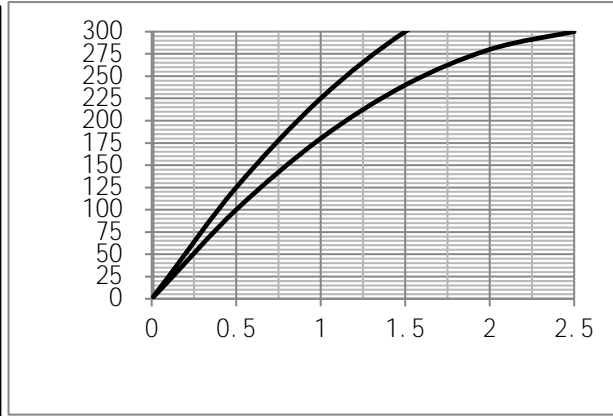


Fig.5 Threshold Voltage V.S Junction Temperature

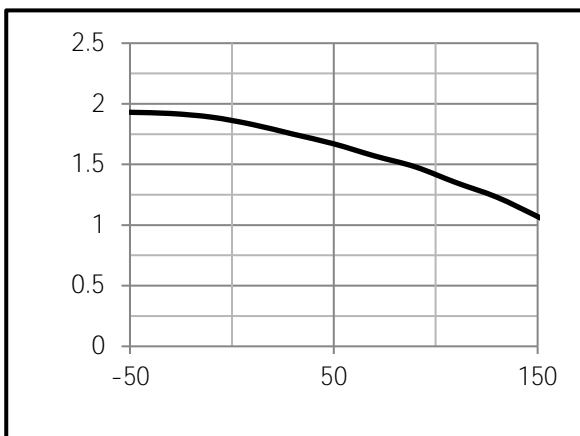
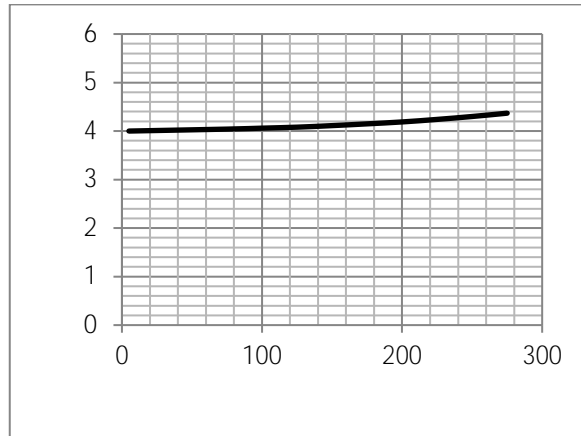


Fig.6 Resistance V.S Drain Current



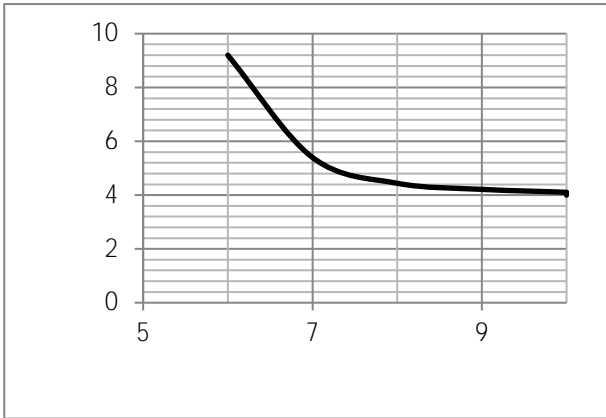


Fig.9 SOA Maximum Safe Operating Area

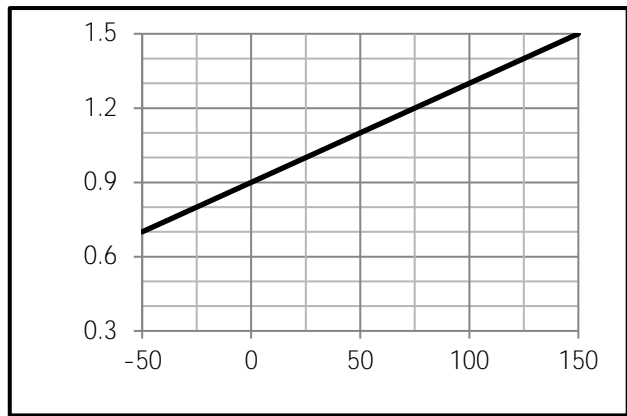


Fig.10  $I_D$ -Junction Temperature

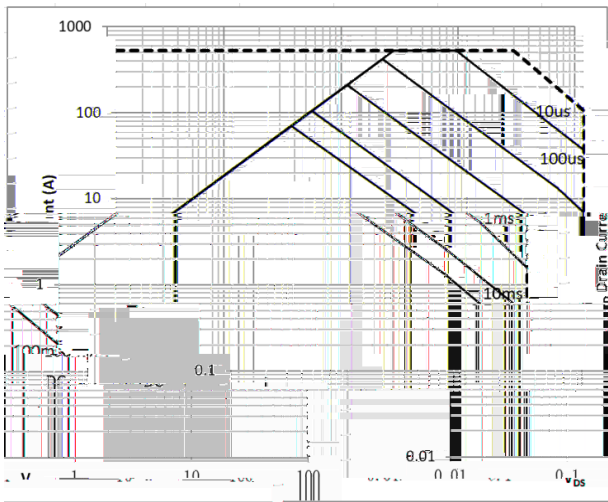


Fig.11 Switching Time Measurement Circuit

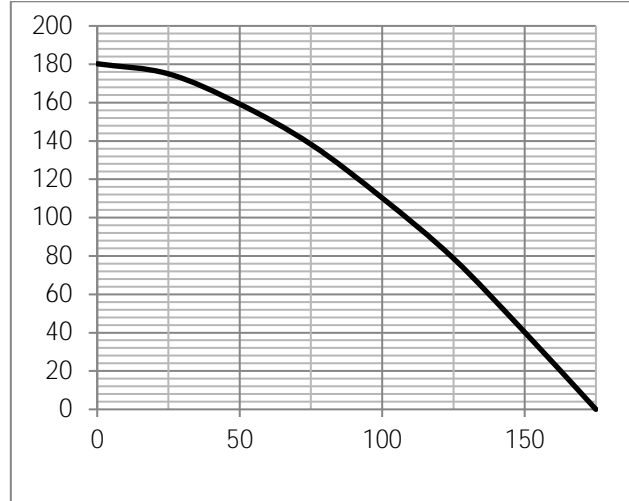


Fig.12 Gate Charge Waveform

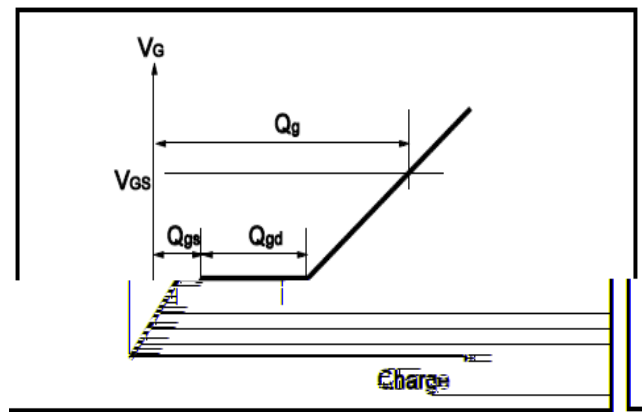
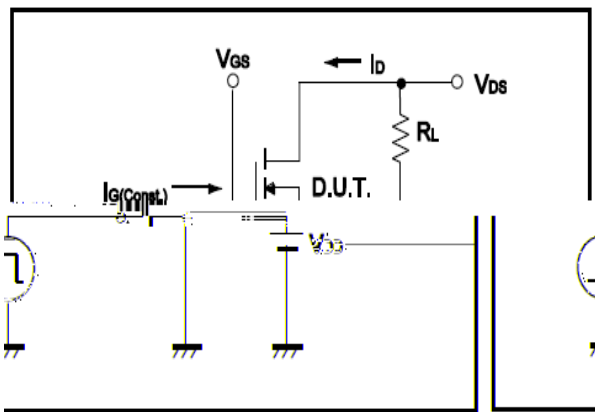


Fig.13 Switching Time Measurement Circuit

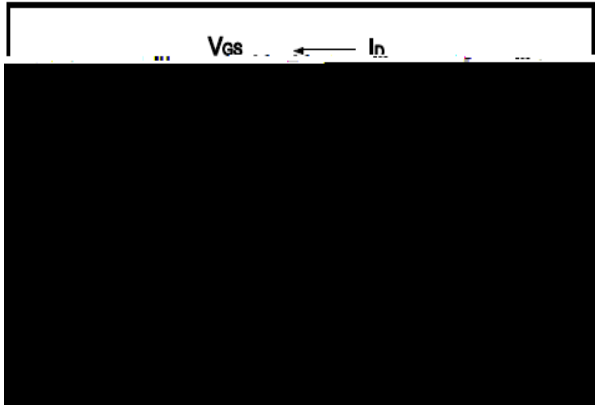


Fig.14 Gate Charge Waveform

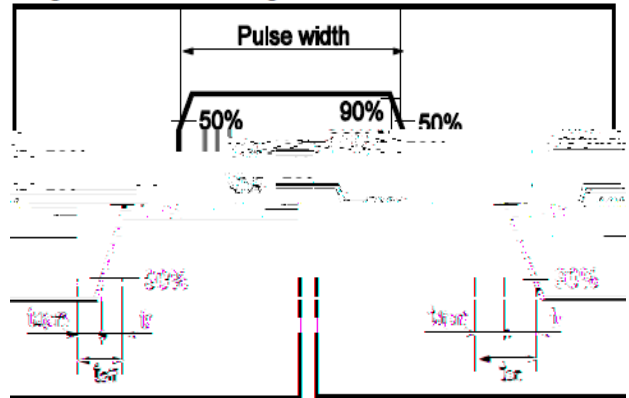


Fig.15 Avalanche Measurement Circuit

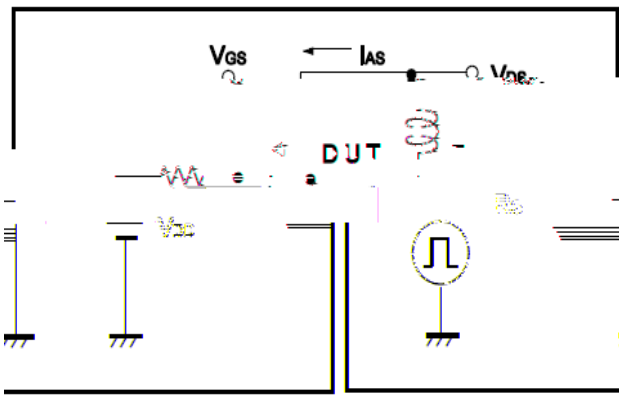


Fig.16 Avalanche Waveform

