
**T_C =25 Q2**

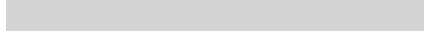
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V _{DS}	30	V
Gate-Source Voltage	V _{GS}	±20	V
Continuous Drain Current	I _{D@TC=25}	86	A
	I _{D@TC=75}	65	A
	I _{D@TC=100}	54	A
Pulsed Drain Current	I _{DM}	258	A
Total Power Dissipation	P _{D@TC=25}	78	W
Total Power Dissipation	P _{D@TA=25}	2.5	W
Operating Junction Temperature	T _J	-55 to 150	
Storage Temperature	T _{STG}	-55 to 150	
Single Pulse Avalanche Energy@L=0.1mH	E _{AS}	100	mJ

Thermal resistance(Q2)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	R _{thJC}	-	-	1.6	° C/W
Thermal resistance, junction - ambient	R _{thJA}	-	-	50	° C/W
Soldering temperature, wavesoldering for 10s	T _{sold}	-	-	265	° C

(Q2)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Drain-Source Breakdown Voltage	BV _{DSS}	V _{GS} =0V, I _D =250uA	30			V
Gate Threshold Voltage	V _{GS(TH)}	V _{GS} =V _{DS} , I _D =250uA	1.2		2.5	V
Drain-Source Leakage Current	I _{DSS}	V _{DS} =30V, V _{GS} =0V			1.0	uA
Gate- Source Leakage Current	I _{GSS}	V _{GS} =±20V, V _{DS} =0V			100	nA
Static Drain-source On Resistance		V _{GS} =10V, I _D =20A				
		V _{GS} =4.5V, I _D =10A				
Forward Transconductance	g _{FS}	V _{DS} =25V, I _D =10A				
Source-drain voltage	V _{SD}	I _S =20A				



characteristics curve(Q1)

Fig.1 Gate-Charge Characteristics

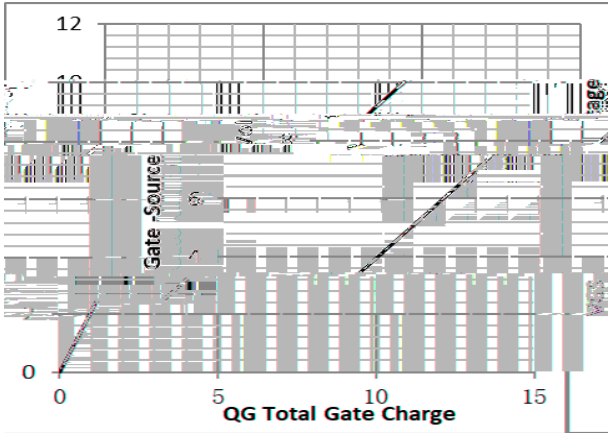


Fig.2 Capacitance Characteristics

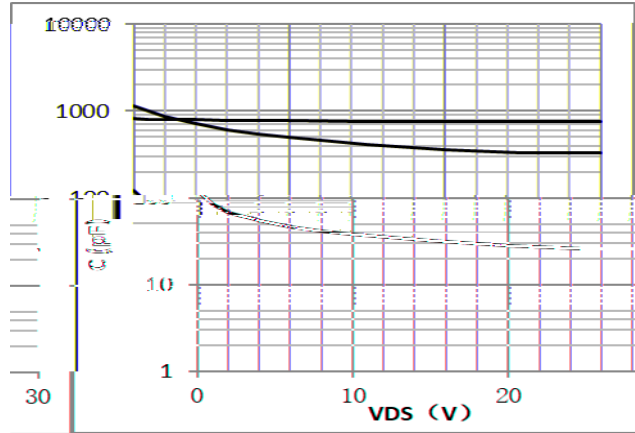


Fig.3 Power Dissipation

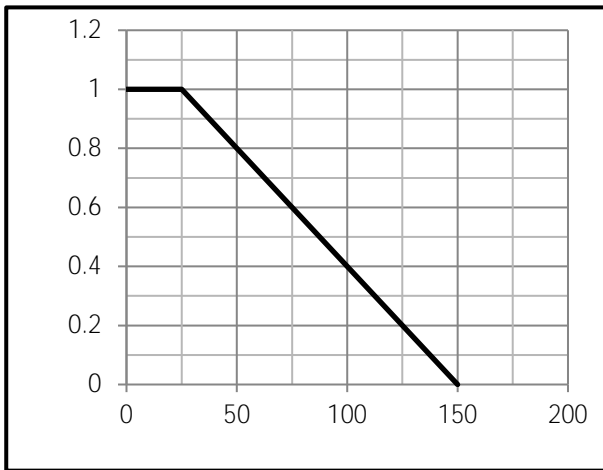


Fig.4 Typical output Characteristics

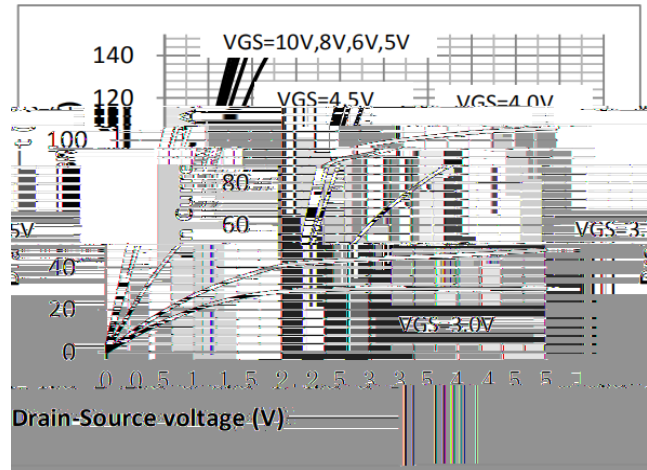


Fig.5 Threshold Voltage V.S Junction Temperature

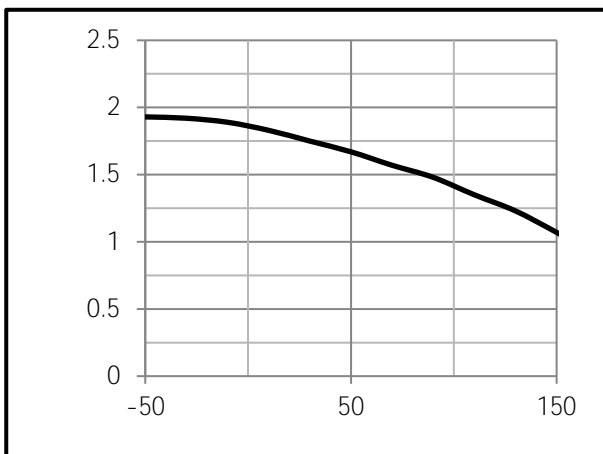
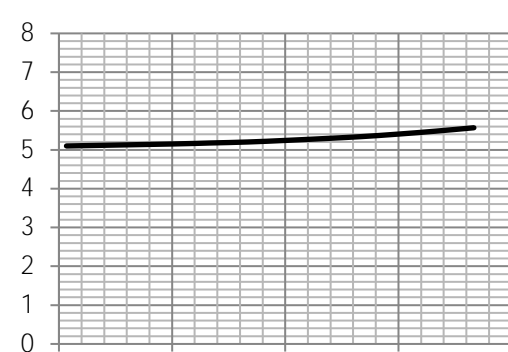


Fig.6 Resistance V.S Drain Current



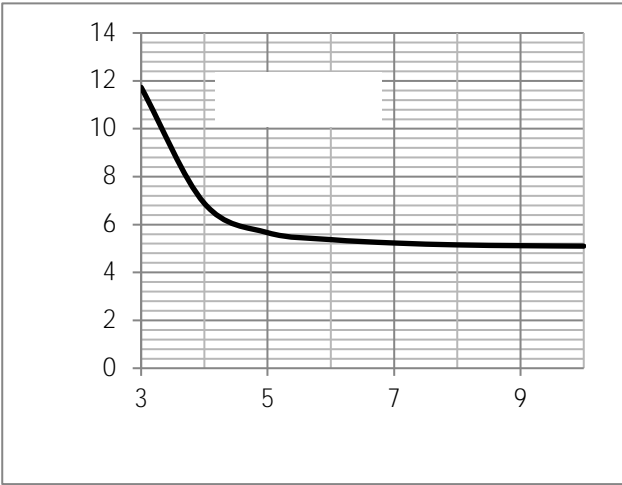


Fig.9 SOA Maximum Safe Operating Area

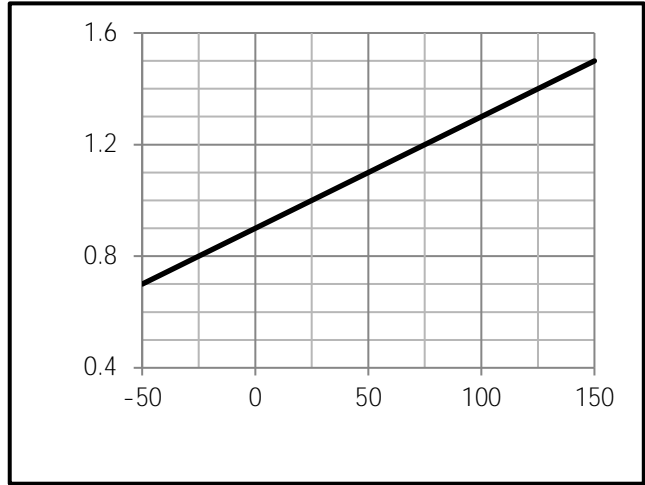


Fig.10 ID-Junction Temperature

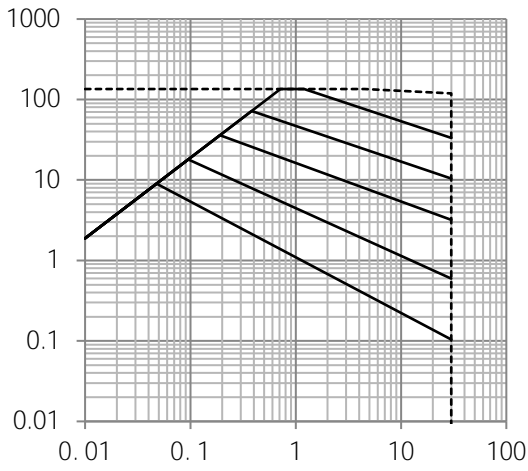


Fig.11 Power Dissipation

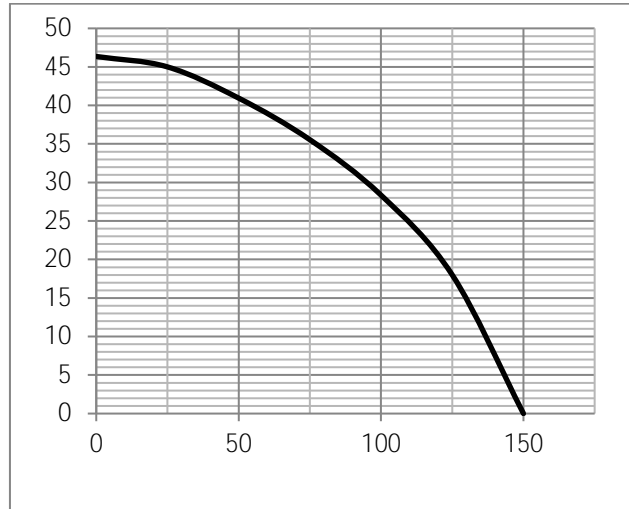


Fig.12 Typical output Characteristics

characteristics curve(Q2)

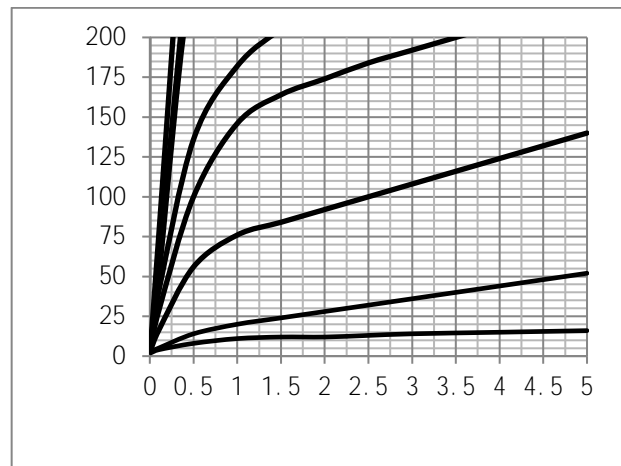
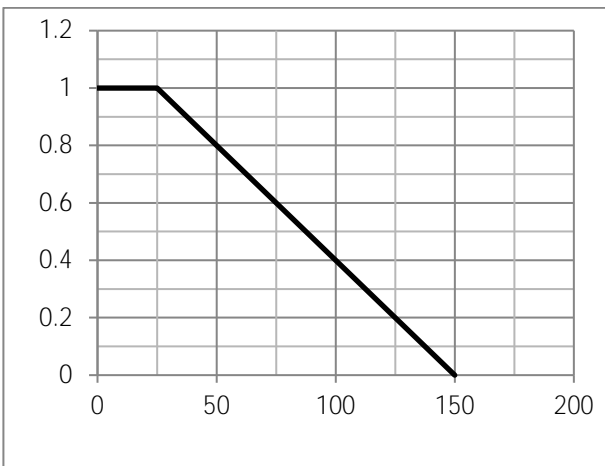




Fig.25 Avalanche Measurement Circuit

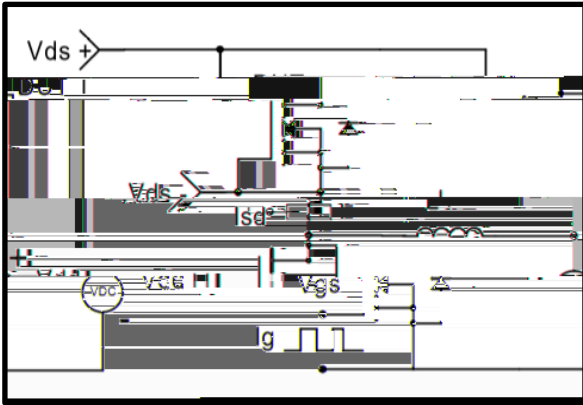


Fig.26 Avalanche Waveform

