



4



4



Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	30	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current	$I_{D@TC=25}$	60	A
	$I_{D@TC=75}$	45.6	A



Thermal resistance(Q1)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	R _{thJC}	-	-	2.1	° C/W
Thermal resistance, junction - ambient	R _{thJA}	-	-	70	° C/W
Soldering temperature, wavesoldering for 10s	T _{sold}	-	-	265	° C

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(Q1)

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Drain-Source Breakdown Voltage	BV _{DSS}	V _{GS} =0V, I _D =250uA	30			V

Ga/4B0.82 0.48002.54 36.504 1

**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}	95	A
	I _{D@TC=75}	72.2	A
	I _{D@TC=100}	59.9	A
Pulsed Drain Current	I _{DM}	230	A
Total Power Dissipation(TC=25)	P _{D@TC=25}	3.6	W
Total Power Dissipation(TA=25)	P _{D@TA=25}	0.69	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}	180	mJ
Avalanche Current@L=0.1mH	I _{AS}	60	A

Thermal resistance(Q2)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	R _{thJC}	-	-	2.5	° C/W
Thermal resistance, junction - ambient	R _{thJA}	-	-	70	° C/W
Soldering temperature, wavesoldering for 10s	T _{sold}	-	-	265	° C

4**(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				

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(Q2)

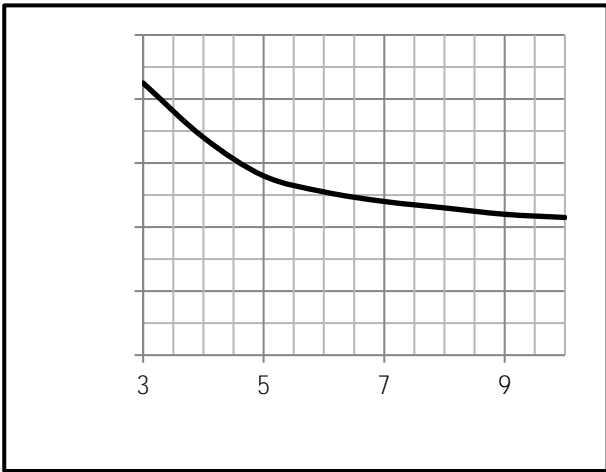
Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Input capacitance	C_{iss}	f = 1MHz	-		-	pF
Output capacitance	C_{oss}		-		-	
Reverse transfer capacitance	C_{rss}		-		-	

Gate Charge characteristics($T_a = 25$)(Q2)

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Total gate charge	Q_g	$V_{DD} = 25V$	-	29	-	nC
Gate - Source charge	Q_{gs}	$I_D = 5A$	-	12	-	
Gate - Drain charge	Q_{gd}	$V_{GS} = 10V$	-	11	-	

Note: Pulse Test : 2% ;





Channel characteristics curve(Q2)

Fig.9 Gate-Charge Characteristics

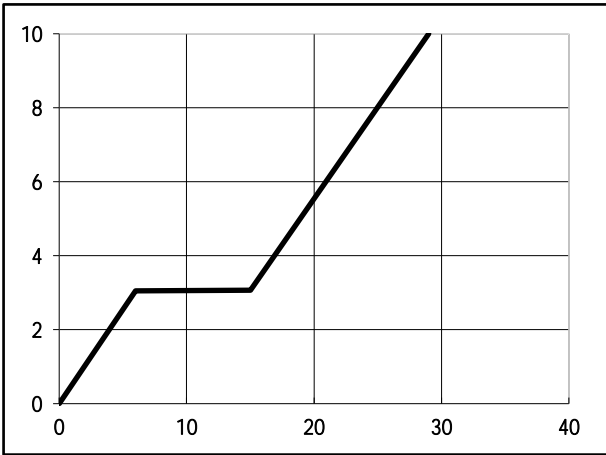


Fig.11 Power Dissipation

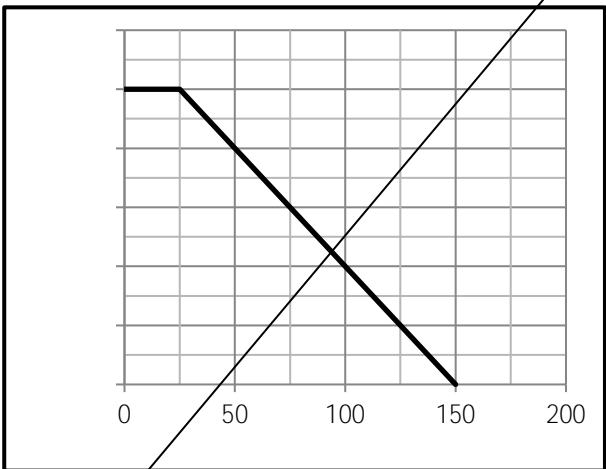


Fig.10 Capacitance Characteristics

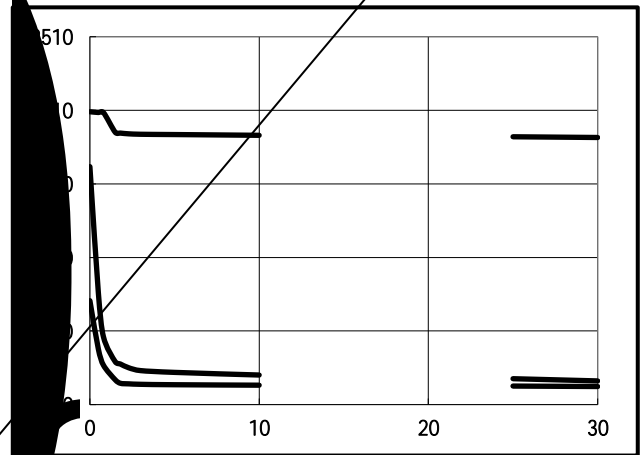


Fig.12 Typical output Characteristics

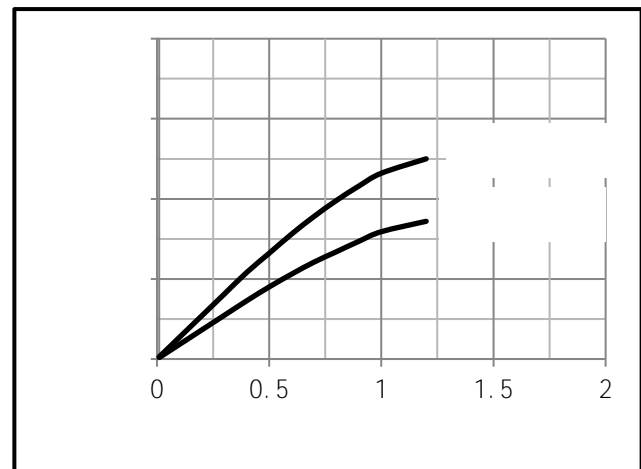




Fig.13 Threshold Voltage V.S Junction Temperature

Fig.14 Resistance V.S Drain Current

