



T_C =25

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V _{DS}	20	V
Gate-Source Voltage	V _{GS}	±8	V
Continuous Drain Current	I _{D@T_C=25°C}	3	A
	I _{D@T_C=75°C}	2.3	A
	I _{D@T_C=100°C}	1.9	A
Pulsed Drain Current ①	I _{DM}	10	A
Total Power Dissipation	P _{D@T_C=25°C}	10	W
Total Power Dissipation	P _{D@T_A=25°C}	0.9	W
Operating Junction Temperature	T _J	-55 to 150	°C
Storage Temperature	T _{STG}	-55 to 150	

Thermal resistance

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	R _{thJC}	-	-	12.5	C/W
Thermal resistance, junction - ambient	R _{thJA}	-	-	150	C/W
Soldering temperature, wavesoldering for 10s	T _{sold}	-	-	265	C

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Drain-Source Breakdown Voltage	BV _{DSS}	V _{GS} =0V, I _D =250uA	20			V
Gate Threshold Voltage	V _{GS(TH)}	V _{GS} =V _{DS} , I _D =250uA	0.5		1.2	V
Drain-Source Leakage Current	I _{DSS}	V _{DS} =20V, V _{GS} =0V			1.0	uA
Gate- Source Leakage Current	I _{GSS}	V _{GS} =±8V, V _{DS} =0V			±100	nA
Static Drain-source On Resistance	R _{DS(ON)}	V _{GS} =4.5V, I _D =3.6A		46	60	mΩ
		V _{GS} =2.5V, I _D =3.1A		65	85	mΩ
Forward Transconductance	g _{FS}	V _{DS} =10V, I _D =5A		8		s

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Input capacitance	C _{iss}	f = 1MHz	-	260	-	pF
Output capacitance	C _{oss}		-	88	-	
Reverse transfer capacitance	C _{rss}		-	64	-	

Gate Charge characteristics(T_a = 25°C)

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Total gate charge	Q _g	V _{DD} =10V I _D = 300.29 197				

Fig.1 Power Dissipation Derating Curve

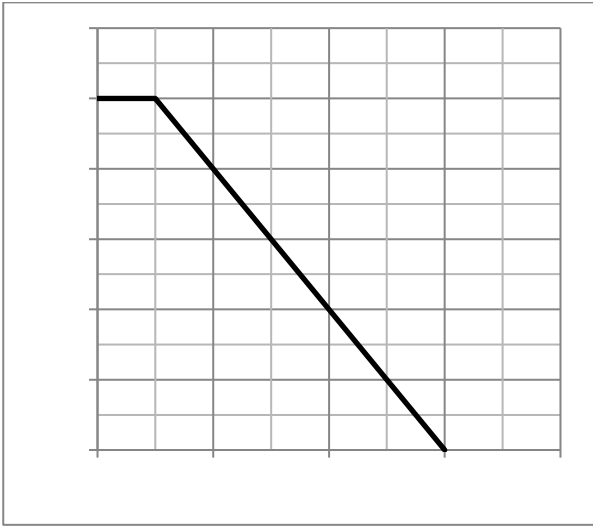


Fig.2 Typical output Characteristics

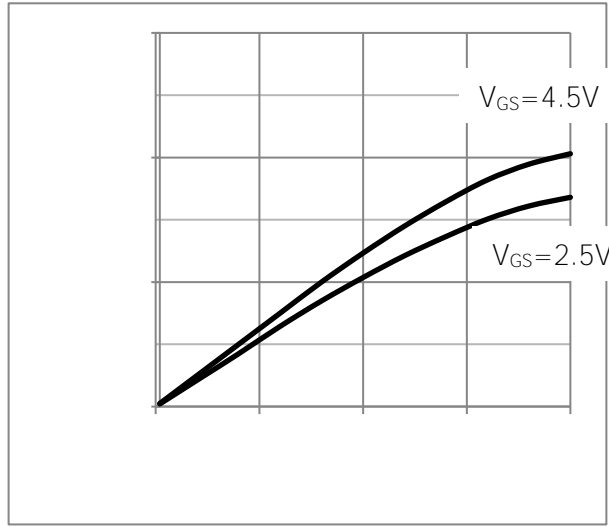


Fig.3 Threshold Voltage V.S Junction Temperature

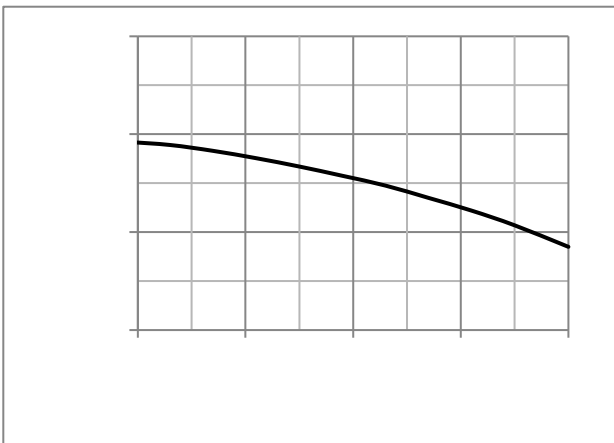


Fig.4 Resistance V.S Drain Current

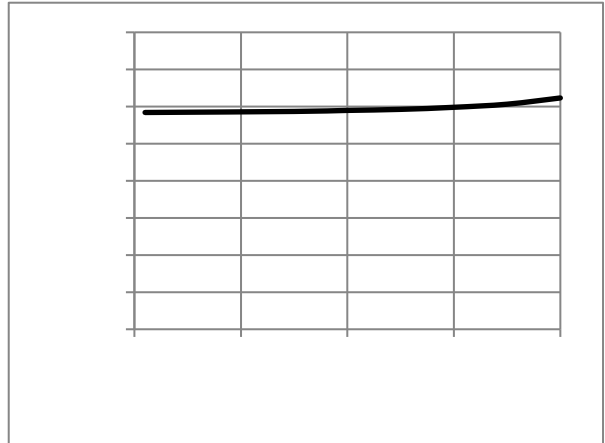


Fig.5 On-Resistance VS Gate Source Voltage

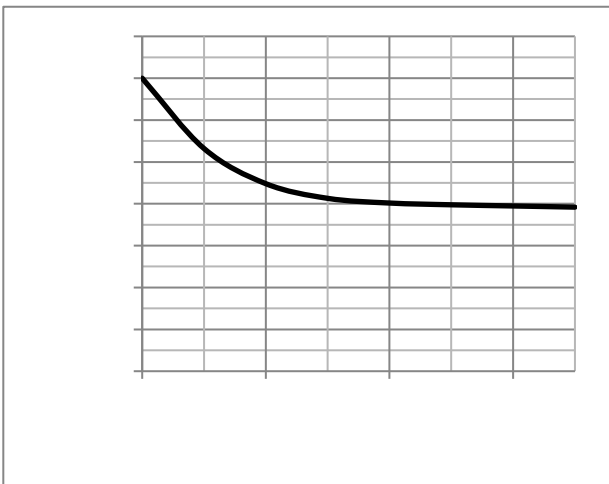


Fig.6 On-Resistance V.S Junction Temperature

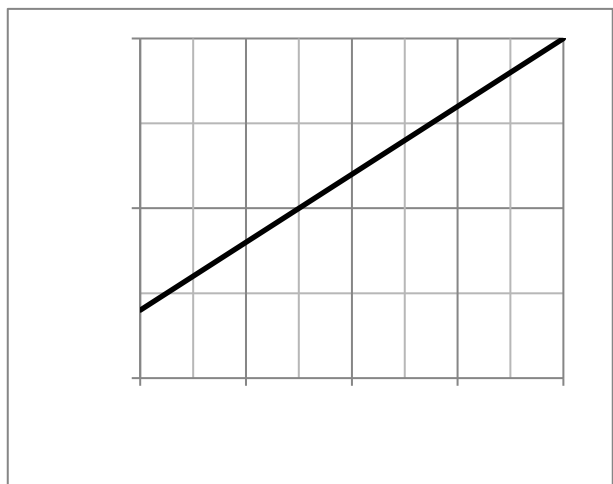




Fig.7 Switching Time Measurement Circuit

Fig.8 Gate Charge Waveform

Fig.9 Switching Time Measurement Circuit

Fig.10 Gate Charge Waveform

Fig.11 Avalanche Measurement Circuit

Fig.12 Avalanche Waveform

