

**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}	16	A
	I _{D@TC=75}	12	A
	I _{D@TC=100}	10	A
Pulsed Drain Current	I _{DM}	48	A
Total Power Dissipation	P _{D@TC=25}	50	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	

Thermal resistance

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	R _{thJC}	-	-	2.5	° C/W
Thermal resistance, junction - ambient	R _{thJA}	-	-	50	° 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	100			V
Gate Threshold Voltage	V _{GS(TH)}	V _{GS} = V _{DS} , I _D = 250uA	1.0	1.8	2.5	V
Drain-Source Leakage Current	I _{DSS}	V _{DS} = 100V, 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	R _{DS(ON)}	V _{GS} = 10V, I _D = 16A				
		V _{GS} = 4.5V, I _D = 12A				
Forward Transconductance	g _{FS}	V _{DS} = 10V, I _D = 4A				

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Input capacitance	C _{iss}	f = 1MHz	-	266	-	pF
Output capacitance	C _{oss}		-	138	-	
Reverse transfer capacitance	C _{rss}		-	25	-	

Gate Charge characteristics(T_a = 25)

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Total gate charge	Q _g	V _{DD} = 25V	-	4.7	-	nC
Gate - Source charge	Q _{gs}	I _D = 8A	-	1.2	-	
Gate - Drain charge	Q _{gd}	V _{GS} = 10V	-	0.64	-	

Note: Pulse Test : ;

Fig.7 Switching Time Measurement Circuit

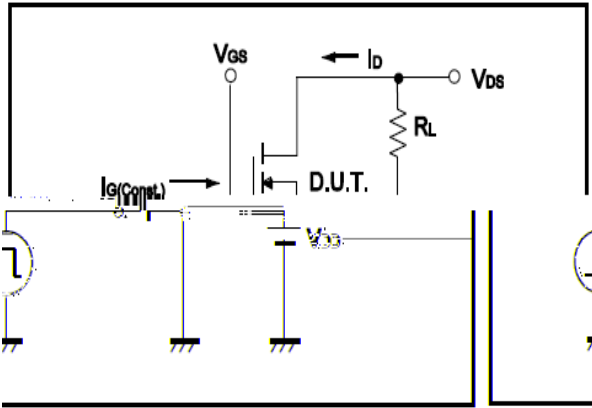


Fig.8 Gate Charge Waveform

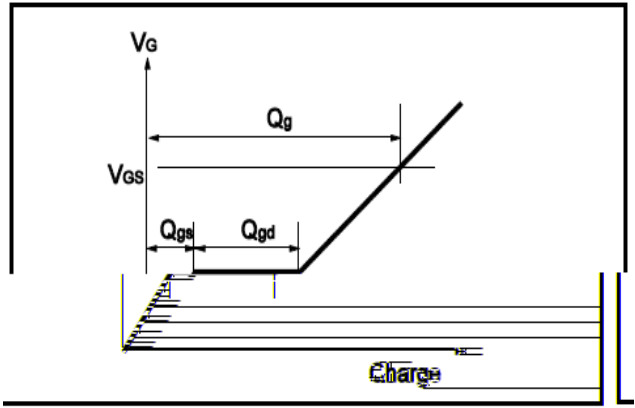


Fig.9 Switching Time Measurement Circuit

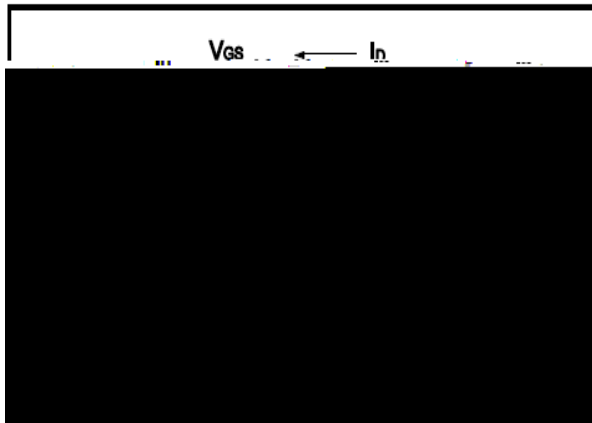


Fig.10 Gate Charge Waveform

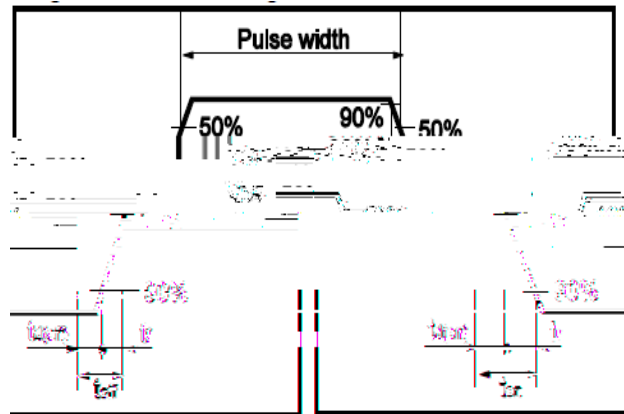


Fig.11 Avalanche Measurement Circuit

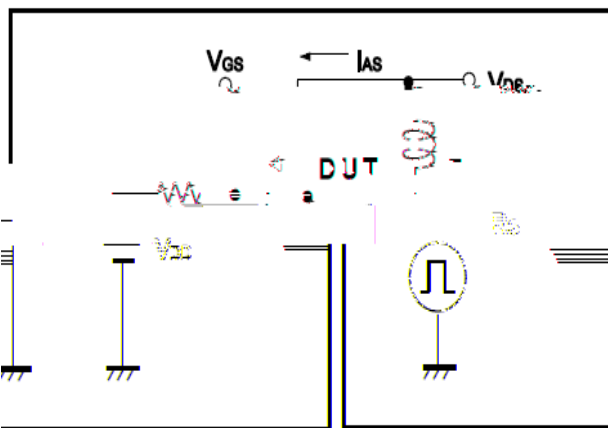
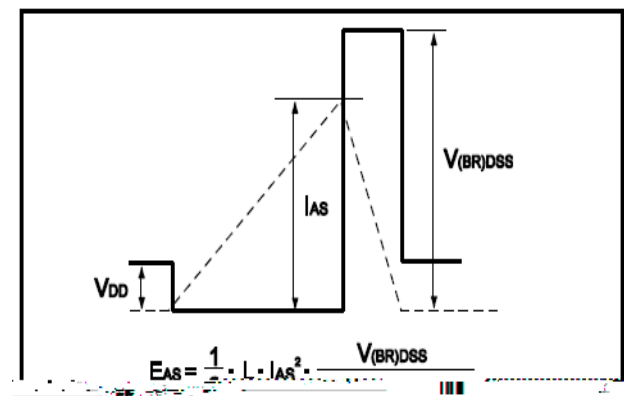


Fig.12 Avalanche Waveform





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Unit mm

SYMBOL	min	max	SYMBOL	min	max
A	2.10	2.50	D	6.35	6.80
A1	0.95	1.30	D1	5.10	5.50
B	0.80	1.25	E	5.30	6.30

b