



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°C}	-35	A
	I _{D@TC=75°C}	-27	A
	I _{D@TC=100°C}	-22	A
Pulsed Drain Current ①	I _{DM}	-120	A
Total Power Dissipation(TC=25°C)	P _{D@TC=25°C}	150	W
Total Power Dissipation(TA=25°C)	P _{D@TA=25°C}	3.5	W
Operating Junction Temperature	T _J	-	

Avalanche Current@L=0.1mH	I_{AS}	40	A
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Thermal resistance

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	R_{thJC}	-	-	0.83	° C/W
Thermal resistance, junction - ambient	R_{thJA}	-	-	35.7	° C/W
Soldering temperature, wavesoldering for 10s	T_{sold}	-	-	265	° C

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V, I_D=-250\mu A$	-100			V
Gate Threshold Voltage	$V_{GS(TH)}$	$V_{GS}=V_{DS}, I_D=-250\mu A$	-1.2		-2.5	V
Drain-Source Leakage Current	I_{DSS}	$V_{DS}=-100V, V_{GS}=0V$			-1.0	μA
Gate- Source Leakage Current	I_{GSS}	$V_{GS}=\pm 20V, V_{DS}=0V$			± 100	nA
Static Drain-source On Resistance	$F_{8G B}$	$V_{GS}=-10V, I_D=-15A$		38	50	m Ω
		$V_{GS}=-4.5V, I_D=-8A$		42	55	m Ω
Forward Transconductance	g_{FS}	$V_{DS}=-10V, I_D=-10A$		20		s
Source-drain voltage	VSD	$I_S=-15A$			1.28	V

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Input capacitance	C_{iss}	f = 1MHz	-	4500	-	pF
Output capacitance	C_{oss}		-	398	-	
Reverse transfer capacitance	C_{rss}		-	157	-	

Gate Charge characteristics($T_a = 25^\circ C$)

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Total gate charge	Qg	$V_{DD}=-25V$	-	124	-	nC
Gate - Source charge	Qgs	$I_D=-10A$	-	20	-	
Gate - Drain charge	Qgd	$V_{GS}=-10V$	-	29	-	

Note: ① ;



Device mounted on FR-4 substrate PC board, 2oz copper, with thermal bias to bottom layer 1inch square copper plate

Fig.1 Gate-Charge Characteristics

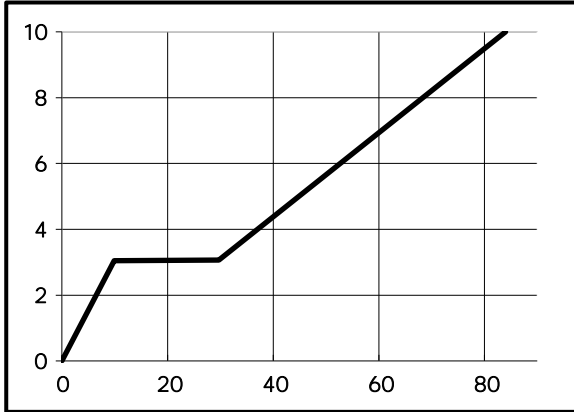


Fig.2 Capacitance Characteristics

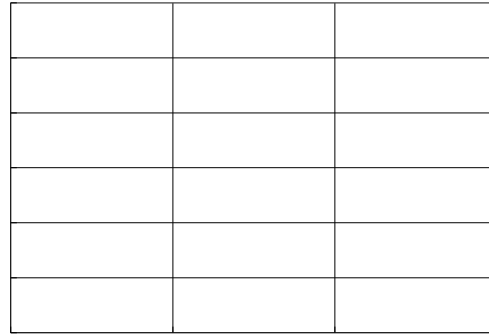
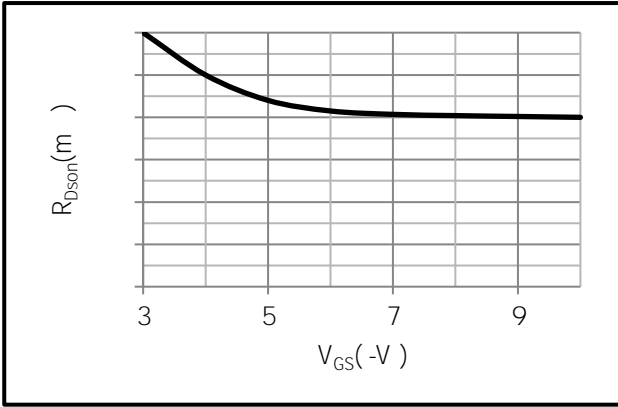


Fig.3 Power Dissipation

Fig.4 Typical output Characteristics

Fig.5 Threshold Voltage V.S Junction Temperature Fig.6 Resistance V.S Drain Current

F gg JG Gci f Jc



F gg JG i c a d f i f

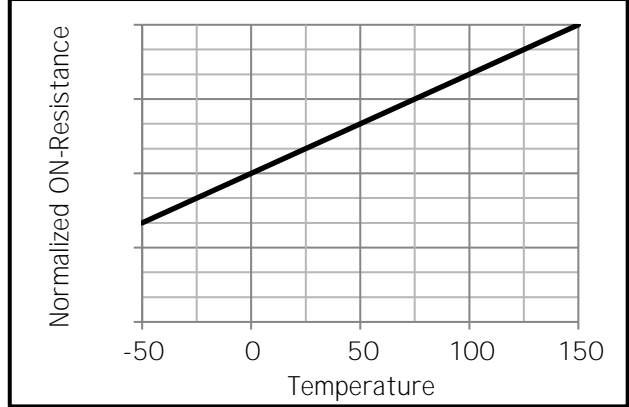


Fig.9 Switching Time Measurement Circuit

Fig.10 Gate Charge Waveform

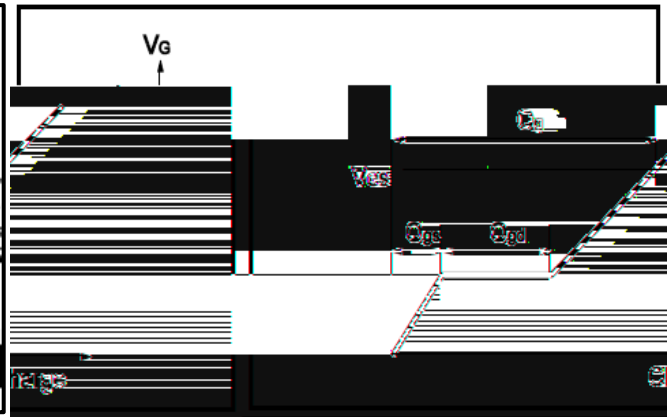
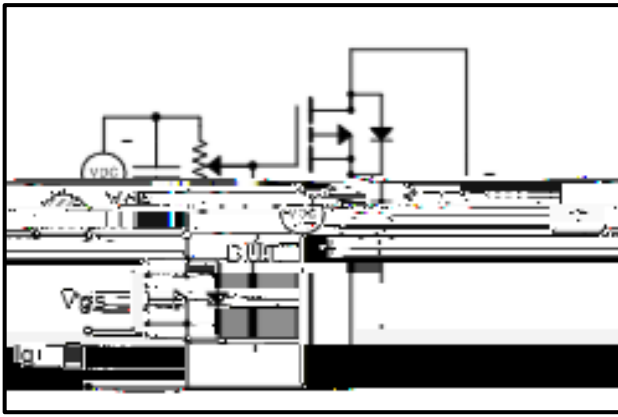
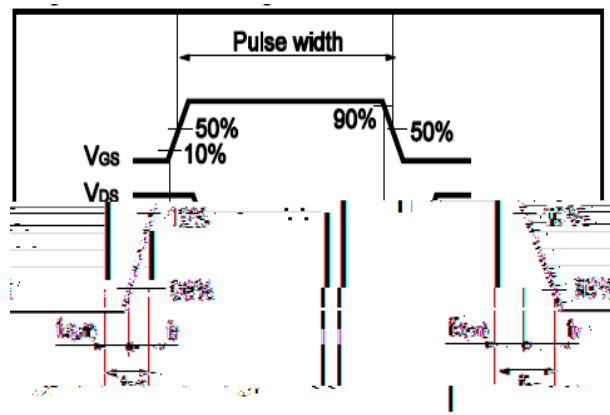
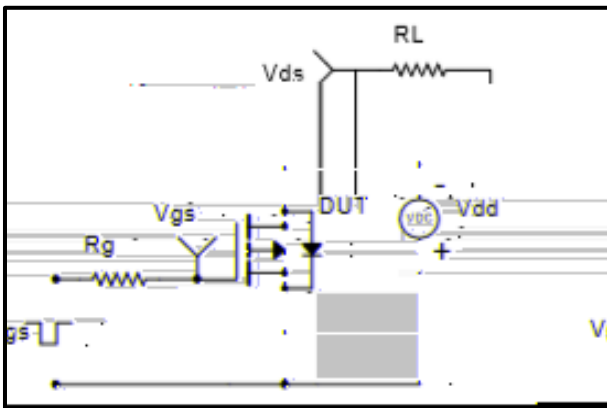


Fig.11 Switching Time Measurement Circuit

Fig.12 Gate Charge Waveform





Dimensions (TO-263)

Unit mm

SYMBOL	MIN	TYP	MAX	SYMBOL	MIN	TYP	MAX
A	4.42		4.72	E	8.99		9.29
B	1.22		1.32	e1	2.44		2.64
b	0.76		0.86	e2	4.98		5.18
b1	1.22		1.32	L1	15.19		15.79
b2	0.33		0.43	L2	2.29		2.79