



**T<sub>c</sub> =25**

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V <sub>DS</sub>	-100	V
Gate-Source Voltage	V <sub>GS</sub>	±20	V
Continuous Drain Current	I <sub>D@TC=25°C</sub>	-35	A
	I <sub>D@TC=75°C</sub>	-27	A
	I <sub>D@TC=100°C</sub>	-22	A
Pulsed Drain Current ①	I <sub>DM</sub>	-120	A
Total Power Dissipation(TC=25°C)	P <sub>D@TC=25°C</sub>	150	W
Total Power Dissipation(TA=25°C)	P <sub>D@TA=25°C</sub>	3.5	W
Operating Junction Temperature	T <sub>J</sub>	-	

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	$^{\circ}C/W$
Thermal resistance, junction - ambient	$R_{thJA}$	-	-	35.7	$^{\circ}C/W$
Soldering temperature, wavesoldering for 10s	$T_{sold}$	-	-	265	$^{\circ}C$

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	$\mu A$
Gate- Source Leakage Current	$I_{GSS}$	$V_{GS}=\pm 20V, V_{DS}=0V$			$\pm 100$	nA
Static Drain-source On Resistance	$F_{8G B}$	$V_{GS}=-10V, I_D=-15A$		38	50	$m\Omega$
		$V_{GS}=-4.5V, I_D=-8A$		42	55	$m\Omega$
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	-	$\mu F$
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	$Q_g$	$V_{DD}=-25V$	-	124	-	nC
Gate - Source charge	$Q_{gs}$	$I_D=-10A$	-	20	-	
Gate - Drain charge	$Q_{gd}$	$V_{GS}=-10V$	-	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

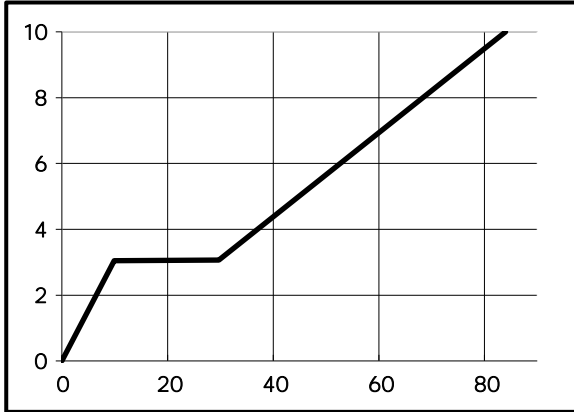


Fig.2 Capacitance Characteristics

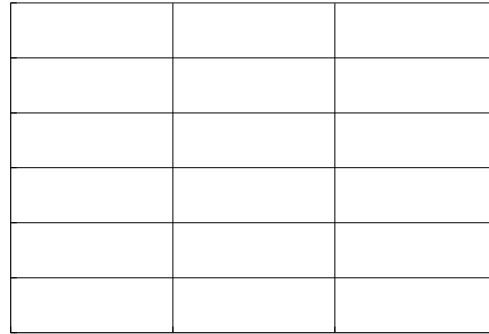
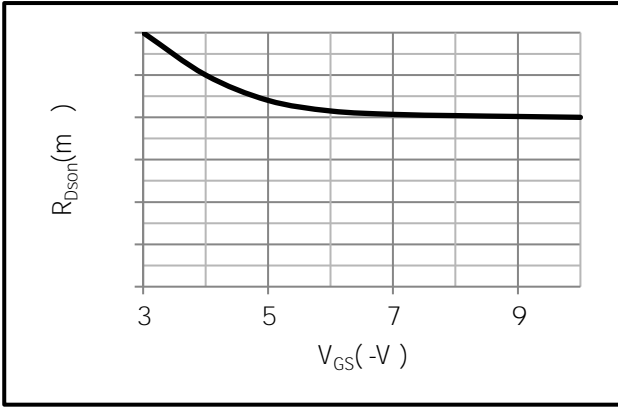


Fig.3 Power Dissipation

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

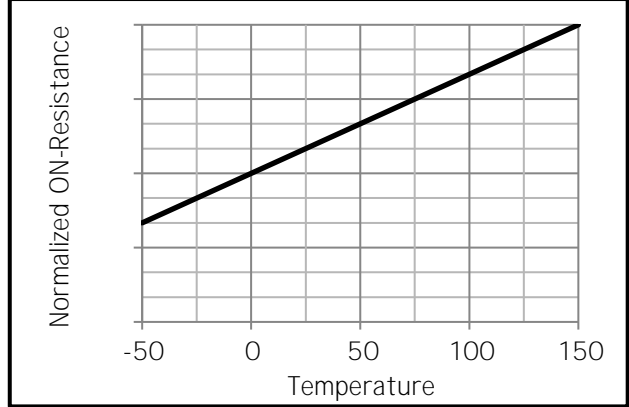


Fig.9 Switching Time Measurement Circuit

Fig.10 Gate Charge Waveform

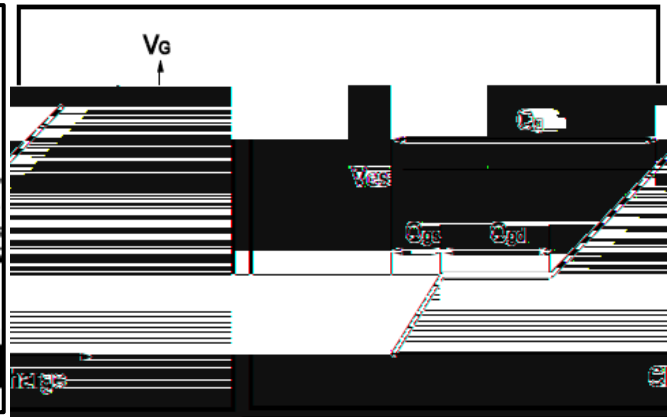
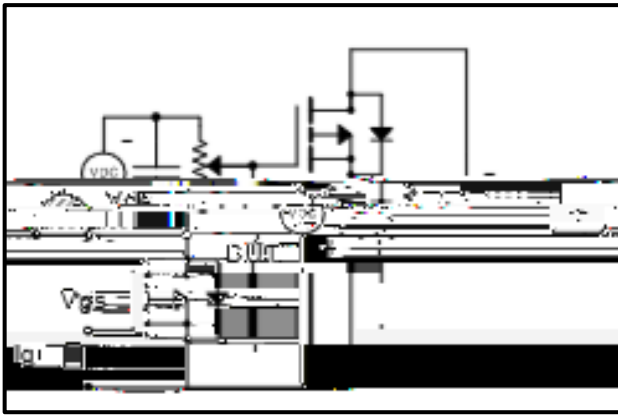
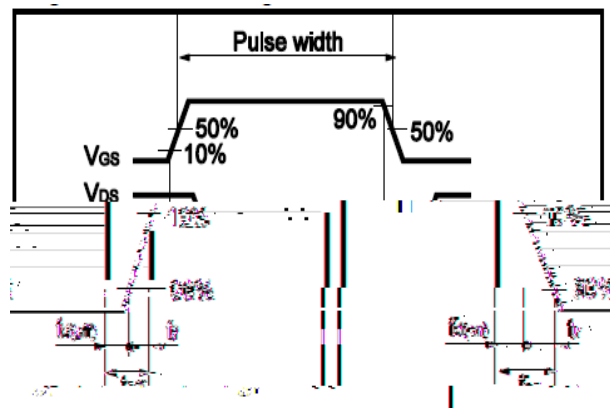
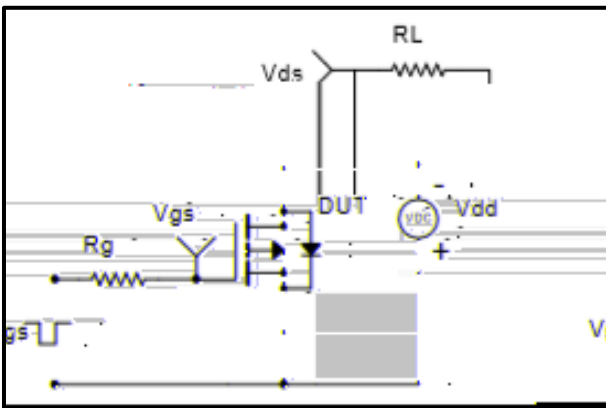


Fig.11 Switching Time Measurement Circuit

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