

**Ordering Information:****Absolute Maximum Ratings** $T_C = 25$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	80	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current	$I_D @ T_C = 25$	11	A
	$I_D @ T_C = 75$	8.3	A
	$I_D @ T_C = 100$	6.9	A
Pulsed Drain Current	I_{DM}	33	A
Total Power Dissipation	$P_D @ T_C = 25$	3.1	W
Total Power Dissipation	$P_D @ T_A = 25$	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

Thermal resistance

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	R _{thJC}	-	-	40	° C/W
Thermal resistance, junction - ambient	R _{thJA}	-	-	180	° C/W
Soldering temperature, wavesoldering for 10s	T _{sold}	-	-	265	° C

Electronic Characteristics

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Drain-Source Breakdown Voltage	BV _{DSS}	V _{GS} =0V, I _D =250uA	80			V
Gate Threshold Voltage	V _{GS(TH)}	V _{GS} =V _{DS} , I _D =250uA	1.3		2.5	V
Drain-Source Leakage Current	I _{DSS}	V _{DS} =80V, 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 =20A				
	R _{DS(ON)}	V _{GS} =10V, I _D =16A				
Forward Transconductance	g _{FS}	V _{DS} =25V, I _D =15A				

Electronic Characteristics

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Input capacitance	C _{iss}	f = 1MHz	-	4400	-	pF
Output capacitance	C _{oss}		-	290	-	
Reverse transfer capacitance	C _{rss}		-	140	-	

Gate Charge characteristics(T_a= 25)

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Total gate charge	Q _g	V _{DD} =30V I _D = 6A V _{GS} = 10V	-	58	-	nC
Gate - Source charge	Q _{gs}		-	13	-	
Gate - Drain charge	Q _{gd}		-	15	-	

Note:

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Device mounted on FR-4 substrate PC board, 2oz copper,

Fig.7 On-Resistance VS Gate Source Voltage

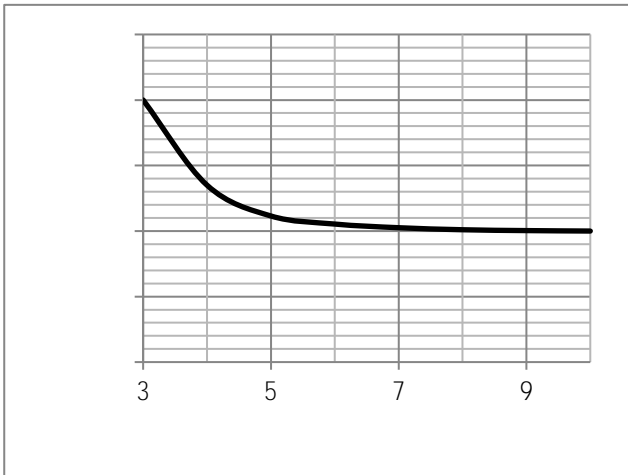


Fig.8 On-Resistance V.S Junction Temperature

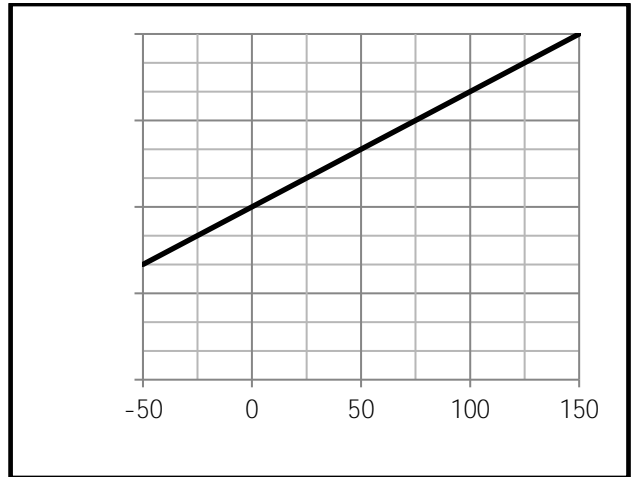


Fig.9 Switching Time Measurement Circuit

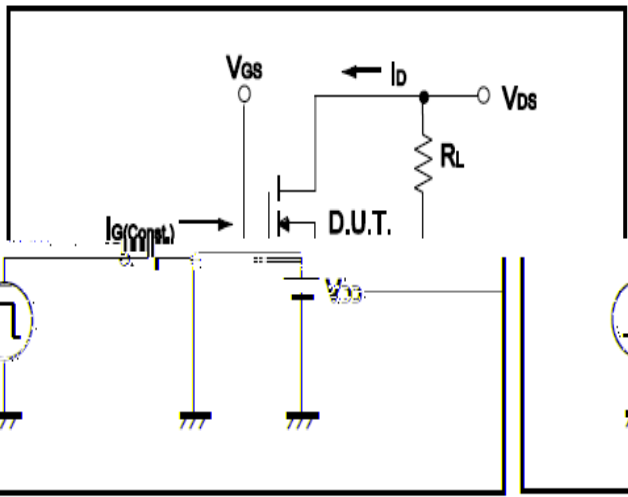


Fig.10 Gate Charge Waveform

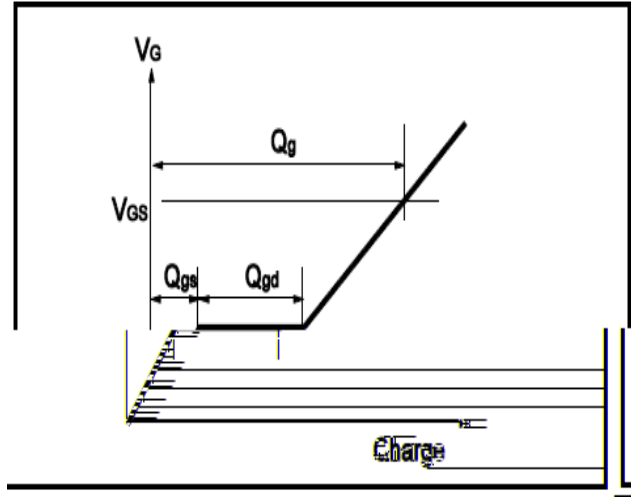


Fig.11 Switching Time Measurement Circuit

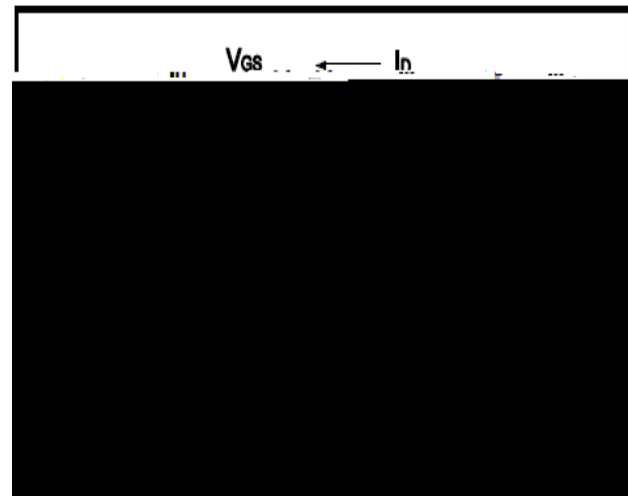
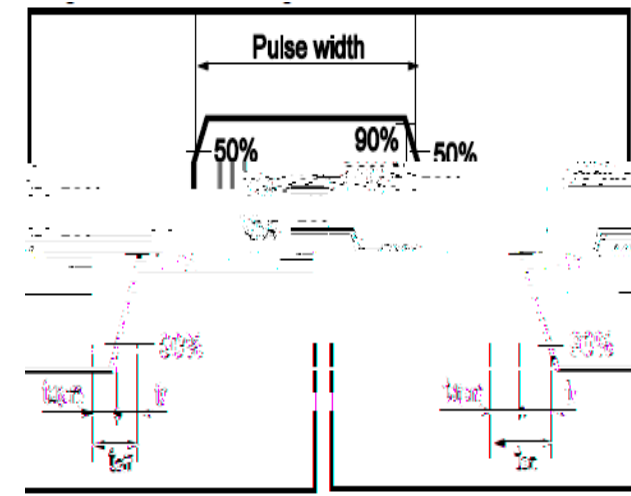


Fig.12 Gate Charge Waveform





Dimensions(SOP8)

Unit: mm

SYMBOL	min	TYP	max	SYMBOL	min		max
A	4.80		5.25	C	1.30		1.75
A1	0.37		0.49	C1	0.55		0.75
A2		1.27		C2	0.55		0.65