



**Thermal resistance**

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	R <sub>thJC</sub>	-	-	1.8	° C/W
Thermal resistance, junction - ambient	R <sub>thJA</sub>	-	-	45	° C/W
Soldering temperature, wavesoldering for 10s	T <sub>sold</sub>	-	-	265	° C

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Drain-Source Breakdown Voltage	BV <sub>DSS</sub>	V <sub>GS</sub> = 0V, I <sub>D</sub> = -250uA	-30			V
Gate Threshold Voltage	V <sub>GS(TH)</sub>	V <sub>GS</sub> = V <sub>DS</sub> , I <sub>D</sub> = -250uA	-1.2		-2.5	V
Drain-Source Leakage Current	I <sub>DSS</sub>	V <sub>DS</sub> = -30V, V <sub>GS</sub> = 0V			-1.0	uA
Gate- Source Leakage Current	I <sub>GSS</sub>	V <sub>GS</sub> = ±20V, V <sub>DS</sub> = 0V			100	nA
Static Drain-source On Resistance		V <sub>GS</sub> = -10V, I <sub>D</sub> = -9A				
		V <sub>GS</sub> = -4.5V, I <sub>D</sub> = -8A				
Forward Transconductance	g <sub>FS</sub>	V <sub>DS</sub> = -10V, I <sub>D</sub> = -5A				
Source-drain voltage	V <sub>SD</sub>	I <sub>S</sub> = -9A				

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Input capacitance	C <sub>iss</sub>	V <sub>GS</sub> = 0V, V <sub>DS</sub> = -15V f = 1MHz	-	1650	-	pF
Output capacitance	C <sub>oss</sub>		-	330	-	
Reverse transfer capacitance	C <sub>rss</sub>		-	220	-	

**Gate Charge characteristics (T<sub>a</sub> = 25 °C)**

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Total gate charge	Q <sub>g</sub>	V <sub>DD</sub> = -20V	-	18	-	nC
Gate - Source charge	Q <sub>gs</sub>	I <sub>D</sub> = -12A	-	6	-	
Gate - Drain charge	Q <sub>gd</sub>	V <sub>GS</sub> = -10V	-	7	-	

Note:

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



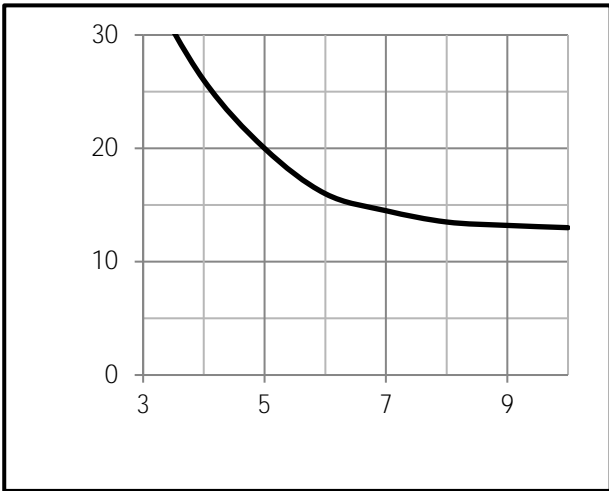


Fig.9 Switching Time Measurement Circuit

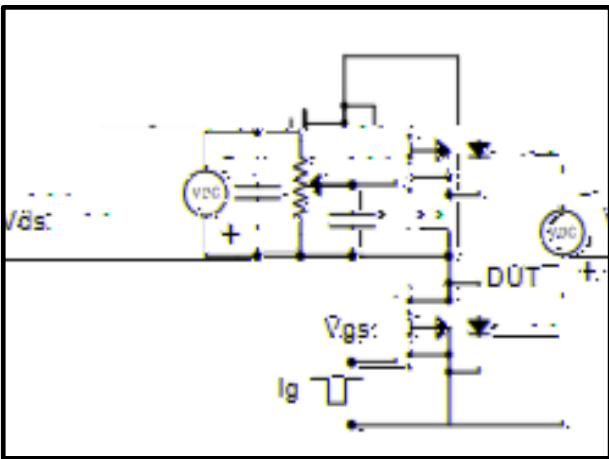


Fig.11 Switching Time Measurement Circuit

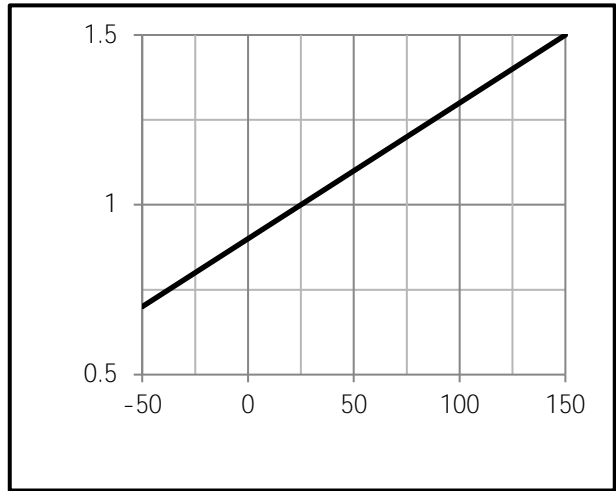
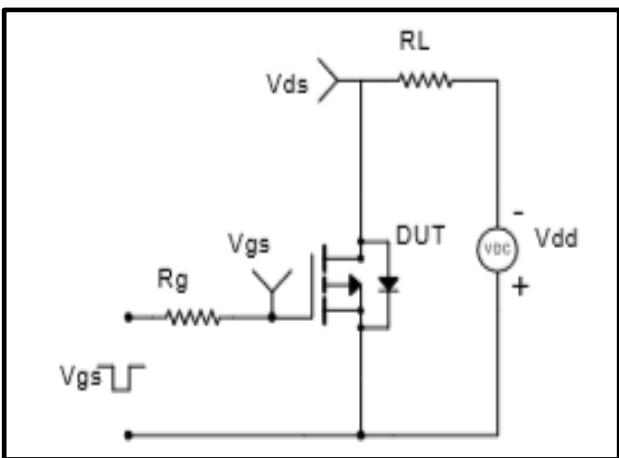


Fig.10 Gate Charge Waveform

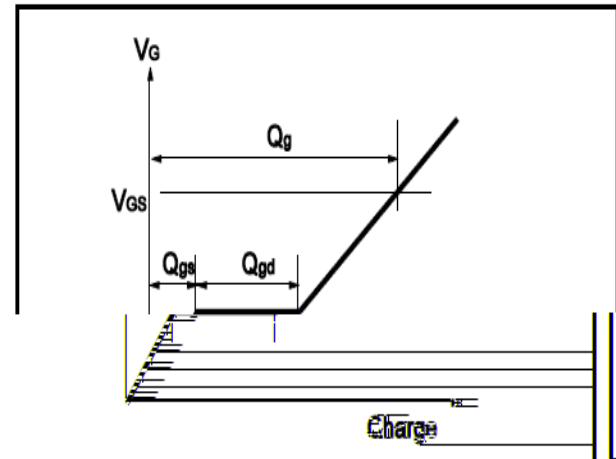
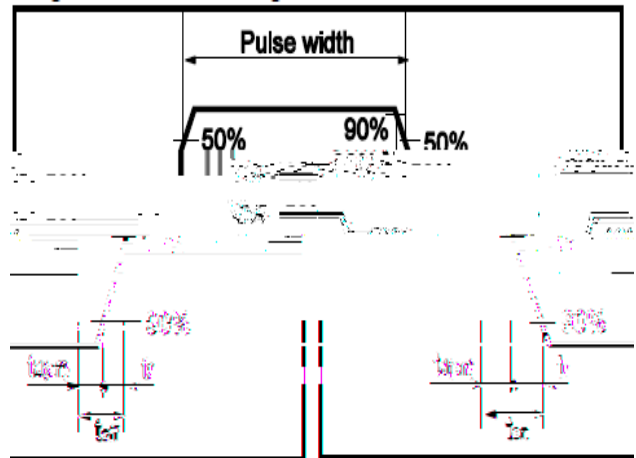


Fig.12 Gate Charge Waveform





sions DFN5x6

Unit mm

