



**Thermal resistance**

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	$R_{thJC}$	-	-	2.5	$^{\circ}C/W$
Thermal resistance, junction - ambient	$R_{thJA}$	-	-	50	$^{\circ}C/W$
Soldering temperature, wavesoldering for 10s	$T_{sold}$	-	-	265	$^{\circ}C$

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS} = 0V, I_D = 250\mu A$	150			V
Gate Threshold Voltage	$V_{GS(TH)}$	$V_{GS} = V_{DS}, I_D = 250\mu A$	2.0		4.0	V
Drain-Source Leakage Current	$I_{DSS}$	$V_{DS} = 150V, V_{GS} = 0V$			1.0	$\mu A$
Gate- Source Leakage Current	$I_{GSS}$	$V_{GS} = \pm 20V, V_{DS} = 0V$			100	nA
Static Drain-source On Resistance		$V_{GS} = 10V, I_D = 20A$				
Forward Transconductance	$g_{FS}$	$V_{DS} = 10V, I_D = 20A$				
Source-drain voltage	$V_{SD}$	$I_S = 20A$				

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Input capacitance	$C_{iss}$	$f = 1MHz$	-	1700	-	$\mu F$
Output capacitance	$C_{oss}$		-	85	-	
Reverse transfer capacitance	$C_{rss}$		-	49	-	

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

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Total gate charge	$Q_g$	$V_{DD} = 25V$	-	28	-	nC
Gate - Source charge	$Q_{gs}$	$I_D = 8A$	-	6	-	
Gate - Drain charge	$Q_{gd}$	$V_{GS} = 10V$	-	5	-	

Note:

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Fig.7 Switching Time Measurement Circuit

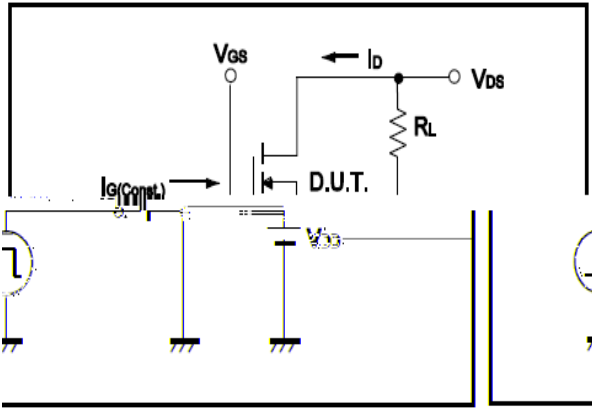


Fig.8 Gate Charge Waveform

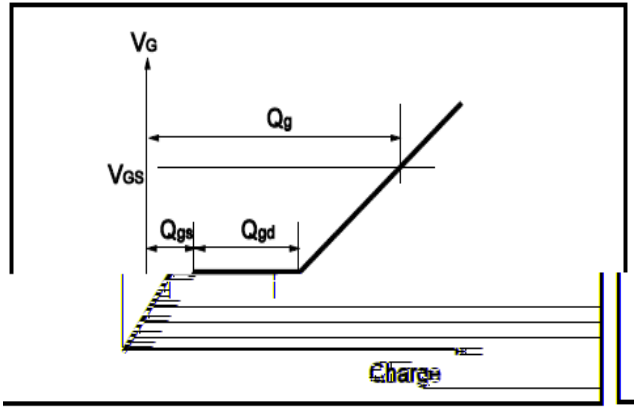


Fig.9 Switching Time Measurement Circuit

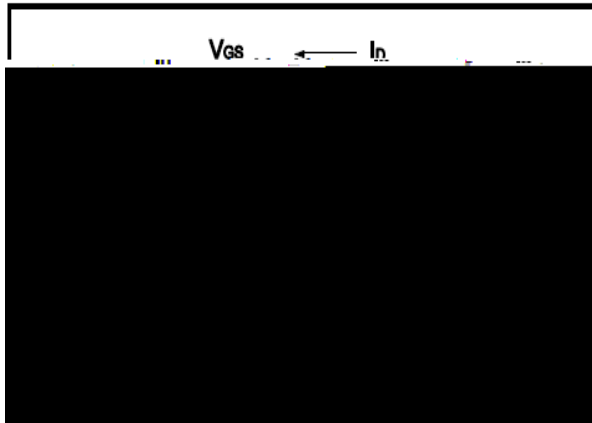


Fig.10 Gate Charge Waveform

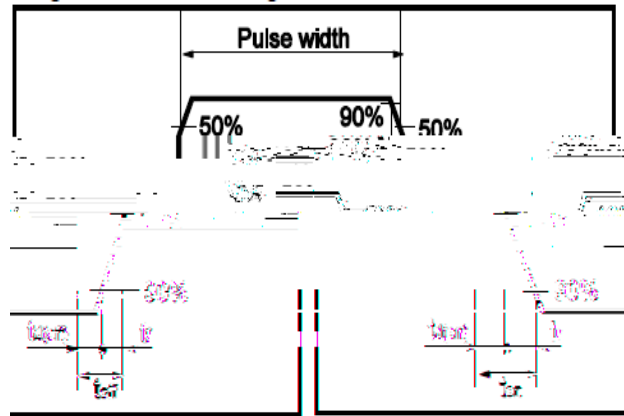


Fig.11 Avalanche Measurement Circuit

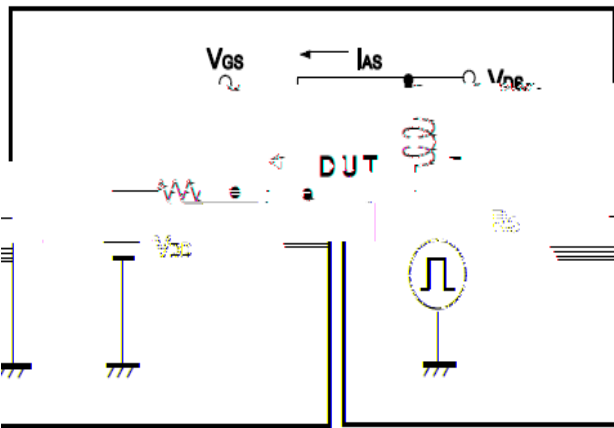
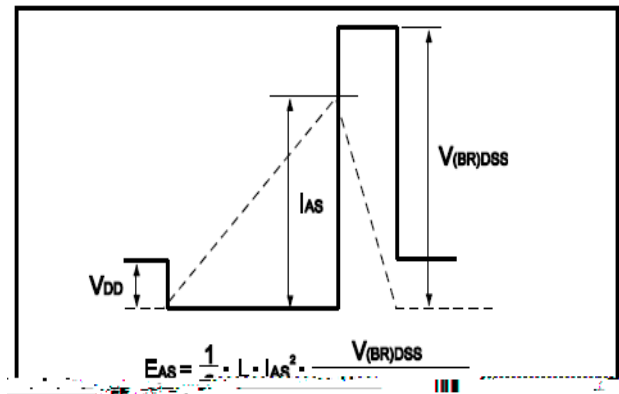


Fig.12 Avalanche Waveform





**Dimensions TO-252**

Unit mm

SYMBOL	min	max	SYMBOL	min	max
A	2.10	2.50	B	0.85	1.25
b	0.50	0.80	b1	0.50	0.90
b2	0.45	0.70	C	0.45	0.70
D	6.30	6.75	D1	5.10	5.50
E	5.30	6.30	e1	2.25	2.35
L1	9.20	10.60	e2	4.45	4.75
L2	0.90	1.75	L3	0.60	1.10
K	0.00	0.23			

