



**Thermal resistance**

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	$R_{thJC}$	-	-	34	$^{\circ}C/W$
Thermal resistance, junction - ambient	$R_{thJA}$	-	-	180	$^{\circ}C/W$
Soldering temperature, wavesoldering for 10s	$T_{sold}$	-	-	265	$^{\circ}C$

**Electronic Characteristics**

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS}=0V, I_D=250\mu A$	60			V
Gate Threshold Voltage	$V_{GS(TH)}$	$V_{GS}=V_{DS}, I_D=250\mu A$	1.2	1.8	2.5	V
Drain-Source Leakage Current	$I_{DSS}$	$V_{DS}=60V, V_{GS}=0V$			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		$V_{GS}=10V, I_D=10A$		28	34	m $\Omega$
		$V_{GS}=4.5V, I_D=8A$		33	40	m $\Omega$
Forward Transconductance	$g_{FS}$	$V_{DS}=25V, I_D=8A$		5		S
Source-drain voltage	$V_{SD}$	$I_S=10A$			1.28	V

**Electronic Characteristics**

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Input capacitance	$C_{iss}$	$f = 1MHz$	-	1150	-	pF
Output capacitance	$C_{oss}$		-	230	-	
Reverse transfer capacitance	$C_{rss}$		-	113	-	

**Gate Charge characteristics( $T_a = 25$  )**

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Total gate charge	$Q_g$	$V_{DD} = 25V$	-	12	-	nC
Gate - Source charge	$Q_{gs}$	$I_D = 5A$	-	4	-	
Gate - Drain charge	$Q_{gd}$	$V_{GS} = 10V$	-	6	-	
Body Diode Reverse Recovery Time	$t_{rr}$			22		nS
Body Diode Reverse Recovery	$Q_{rr}$			76		nS



Fig.7 Switching Time Measurement Circuit

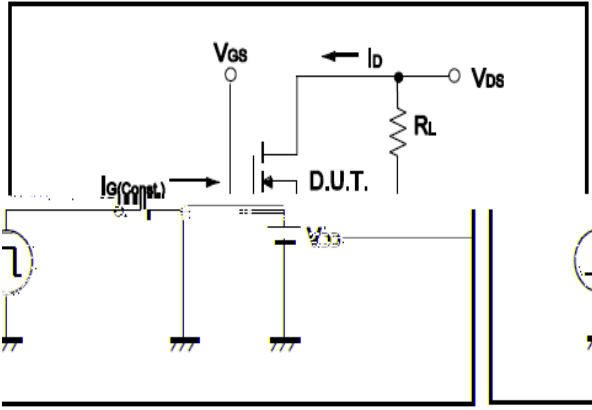


Fig.8 Gate Charge Waveform

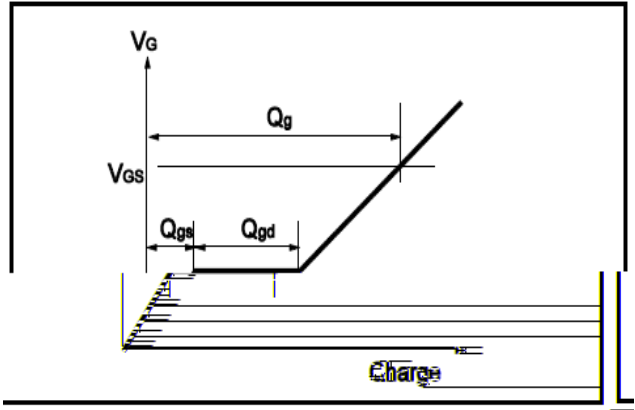


Fig.9 Switching Time Measurement Circuit

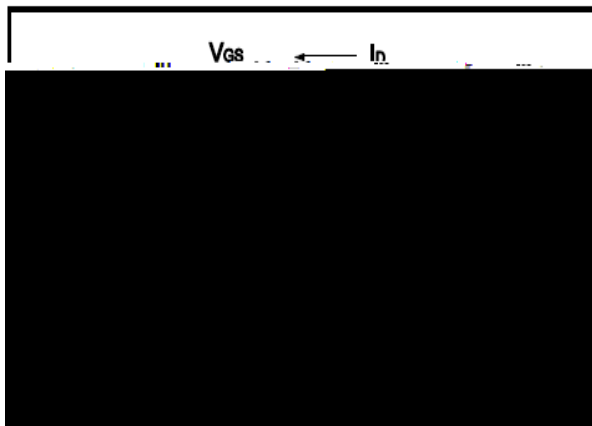


Fig.10 Gate Charge Waveform

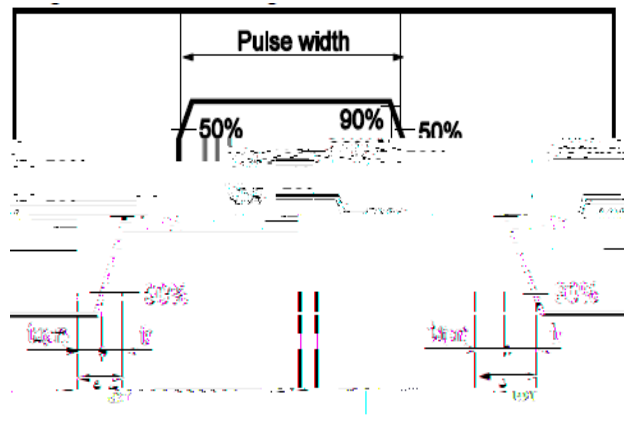


Fig.11 Avalanche Measurement Circuit

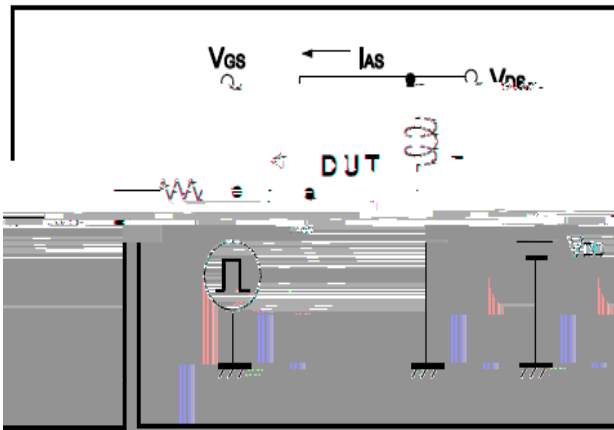
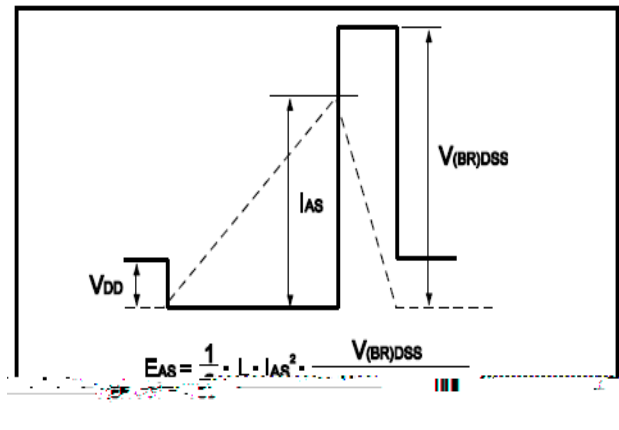


Fig.12 Avalanche Waveform





Dimensions(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
A3		0.41		C3	0.05		0.20
B	5.80		6.20	C4	0.10	0.20	0.23
B1	3.80		4.10	D		1.05	
B2		5.00					