

---

Avalanche Current	$I_{AS}$ $I_{AR}$	40	A
-------------------	-------------------	----	---

**Thermal resistance**

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	$R_{thJC}$	-	-	2.5	$^{\circ}$ C/W
Thermal resistance, junction - ambient	$R_{thJA}$	-	-	70	$^{\circ}$ 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	$BV_{DSS}$	$V_{GS} = 0V, I_D = 250\mu A$	30			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	$I_{DSS}$	$V_{DS} = 30V, V_{GS} = 0V$			1.0	$\mu A$
Gate- Source Leakage Current	$I_{GSS}$	$V_{GS} = \pm 20V, V_{DS} = 0V$			100	nA
Static Drain-source On Resistance		$V_{GS} = 10V, I_D = 20A$				
		$V_{GS} = 4.5V, I_D = 10A$				
Forward Transconductance	$g_{FS}$	$V_{DS} = 25V, I_D = 10A$				
Source-drain voltage	$V_{SD}$	$I_S = 10A$				

**Electronic Characteristics**

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Input capacitance	$C_{iss}$	$f = 1MHz$	-	1150	-	$\mu F$
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	-	

Note:

;

Fig.1 Power Dissipation

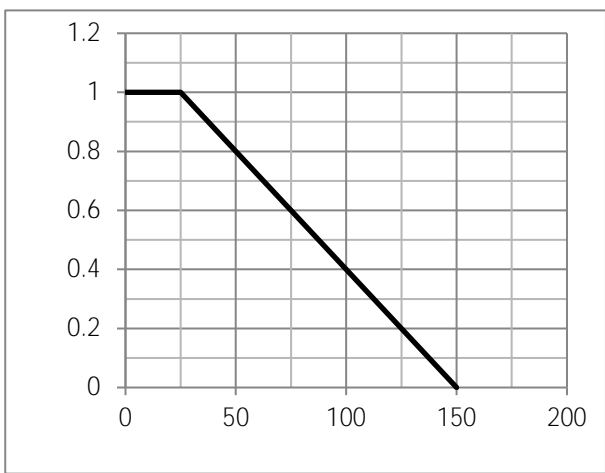


Fig.2 Typical output Characteristics

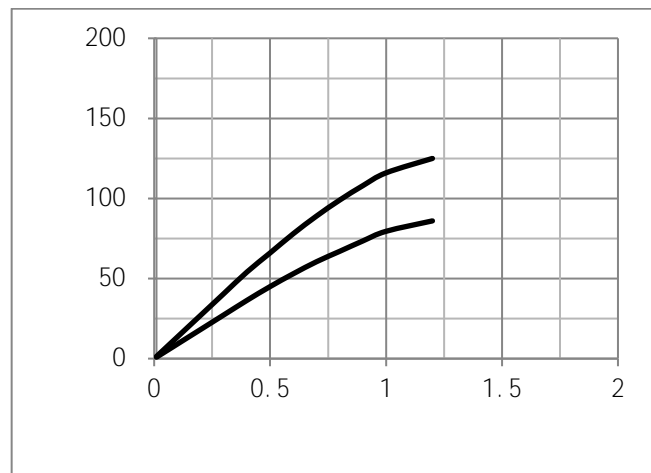


Fig.3 Threshold Voltage V.S Junction Temperature

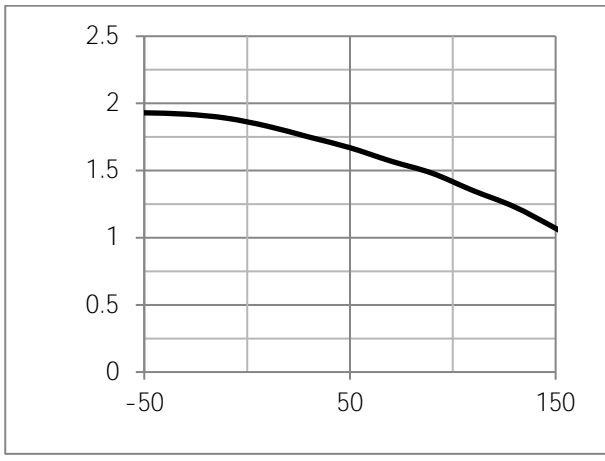


Fig.4 Resistance V.S Drain Current

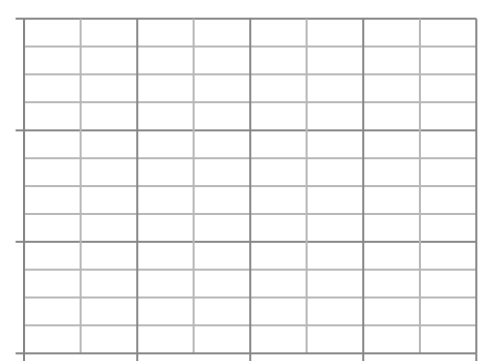
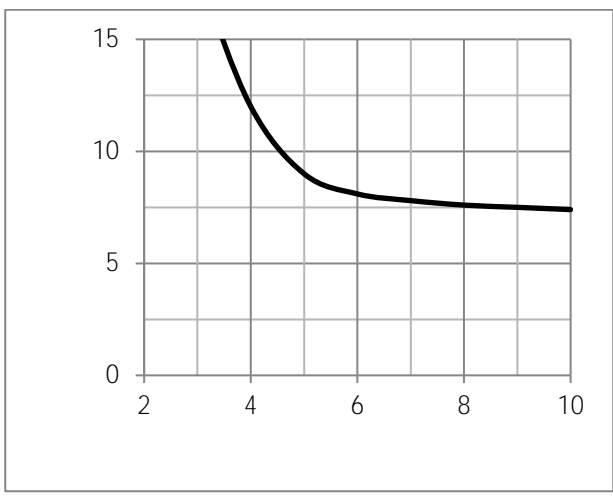
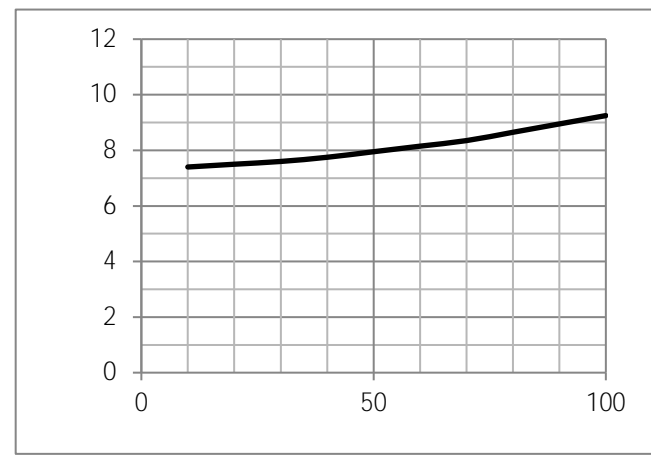


Fig.7 Switching Time Measurement Circuit

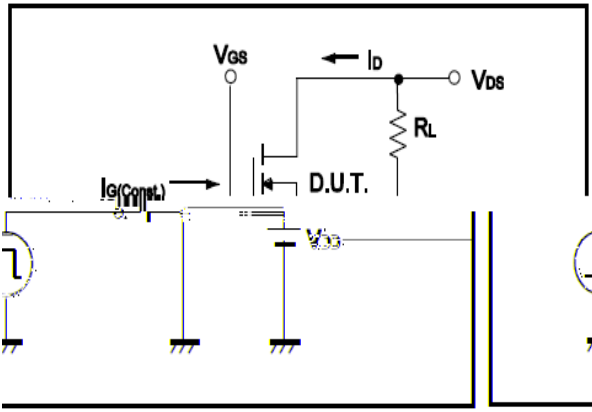


Fig.8 Gate Charge Waveform

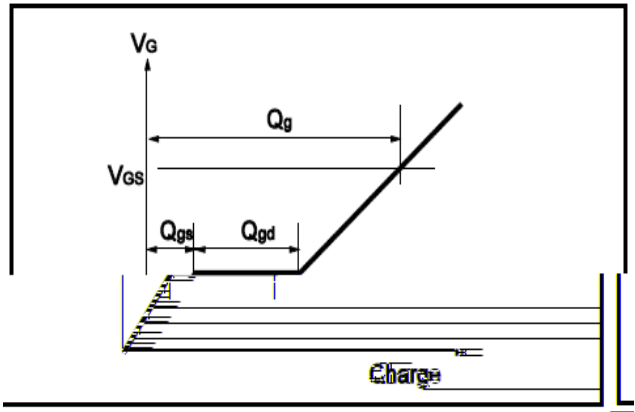


Fig.9 Switching Time Measurement Circuit

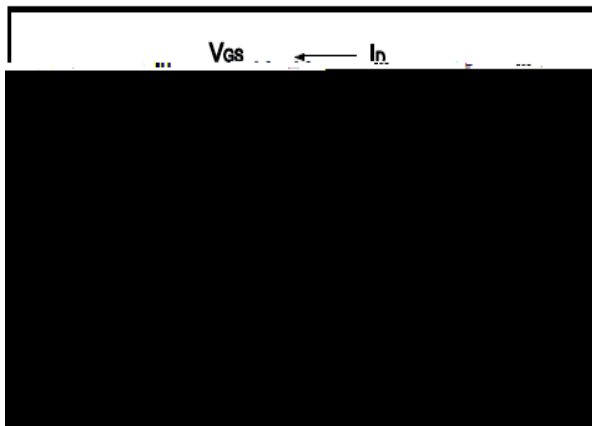


Fig.10 Gate Charge Waveform

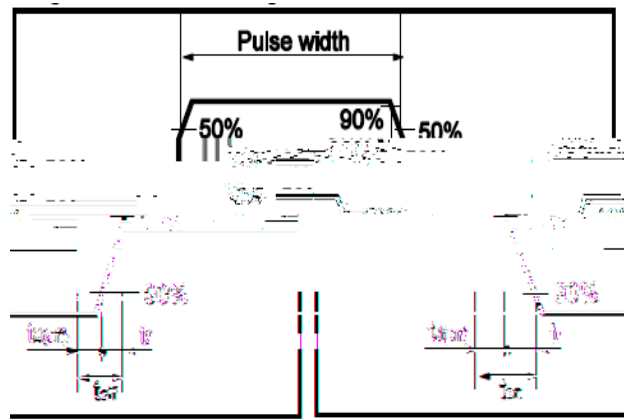


Fig.11 Avalanche Measurement Circuit

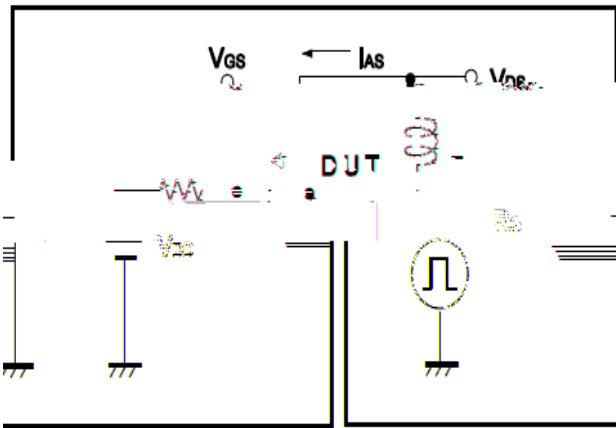
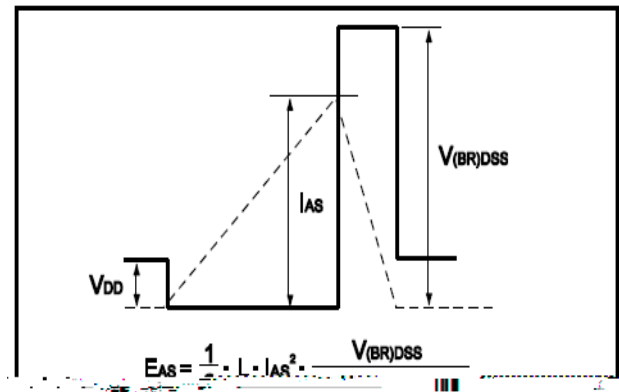


Fig.12 Avalanche Waveform



**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		D1	0.40		0.62

