



•Ordering Information:

•Absolute Maximum Ratings $T_C = 25$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	70	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current	$I_{D@TC=25}$	350	A
	$I_{D@TC=75}$	266	A

•Thermal resistance

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	R _{thJC}	-	-	0.29	° C/W
Thermal resistance, junction - ambient	R _{thJA}	-	-	30	° C/W
Soldering temperature, wave soldering 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	70			V
Gate Threshold Voltage	V _{GS(TH)}	V _{GS} =V _{DS} , I _D =250uA	2.0		4.0	V
Drain-Source Leakage Current	I _{DSS}	V _{DS} =0.8*BVDSS			1.0	uA
Gate- Source Leakage Current	I _{GSS}	V _{GS} =±20V, V _{DS} =0V			100	nA
Static Drain-source On Resistance		V _{GS} =10V, I _D =50A				
Forward Transconductance	g _{FS}	V _{DS} =25V, I _D =10A				
Source-drain voltage	V _{SD}	I _s =50A				

•Electronic Characteristics

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Input capacitance	C _{iss}	V _{GS} =0V, V _{DS} =25V f = 1MHz	-	19500	-	pF
Output capacitance	C _{oss}		-	1860	-	
Reverse transfer capacitance	C _{rss}		-	900	-	

Gate Charge characteristics(T_a = 25)

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Total gate charge	Q _g	V _{DD} = 25V	-	380	-	nC
Gate - Source charge	Q _{gs}	I _D = 8A	-	80	-	
Gate - Drain charge	Q _{gd}	V _{GS} = 10V	-	105	-	
Body Diode Reverse Recovery Time	trr	I _F =20A, di/dt=100A/μs		130		nS
Body Diode Reverse Recovery Charge	Q _{rr}	I _F =20A, di/dt=100A/μs		450		

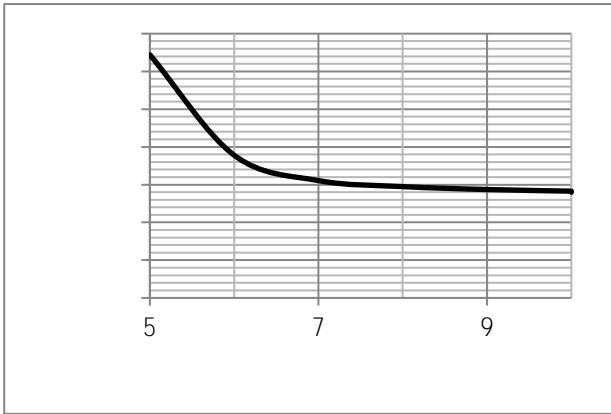


Fig.9 SOA Maximum Safe Operating Area

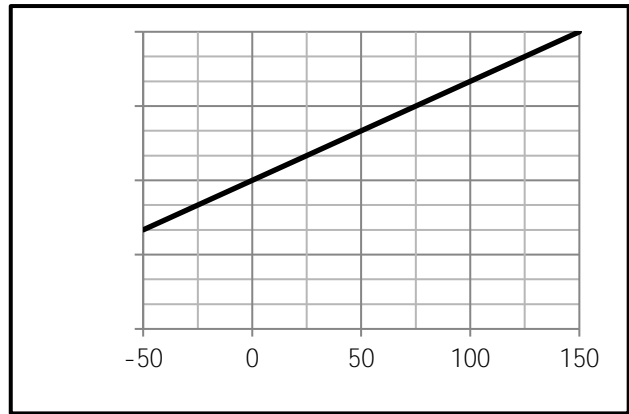


Fig.10 I_D -Junction Temperature

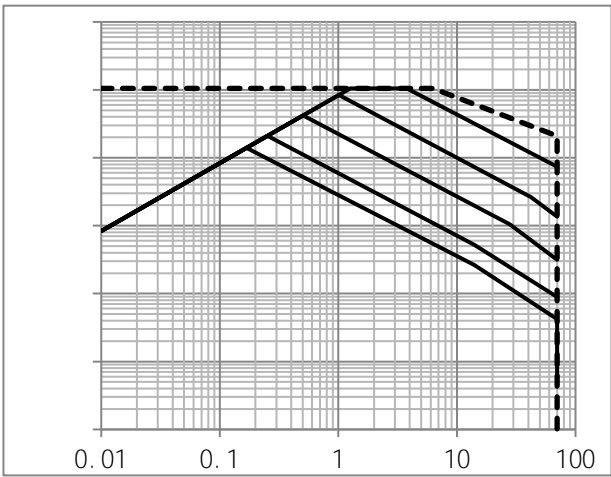


Fig.11 Switching Time Measurement Circuit

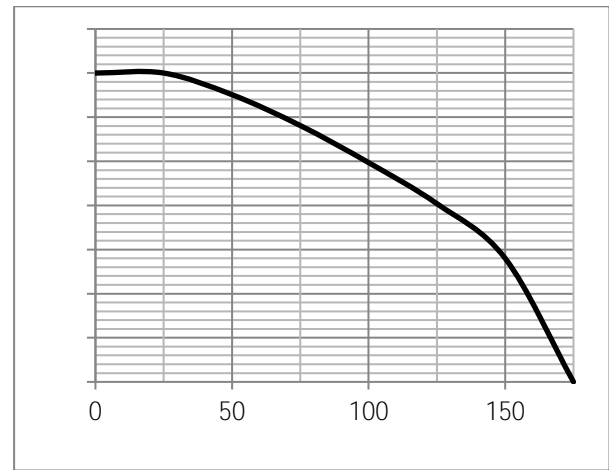


Fig.12 Gate Charge Waveform

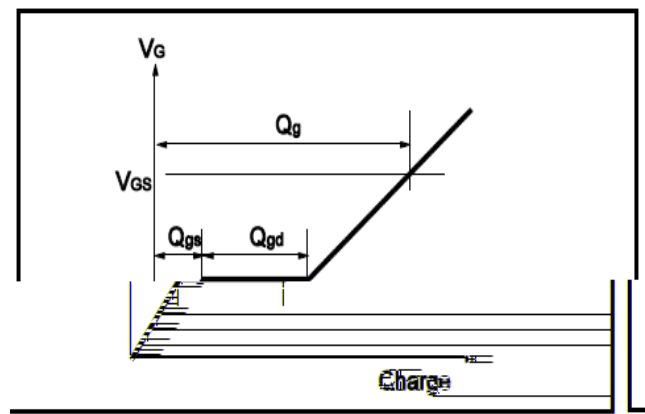
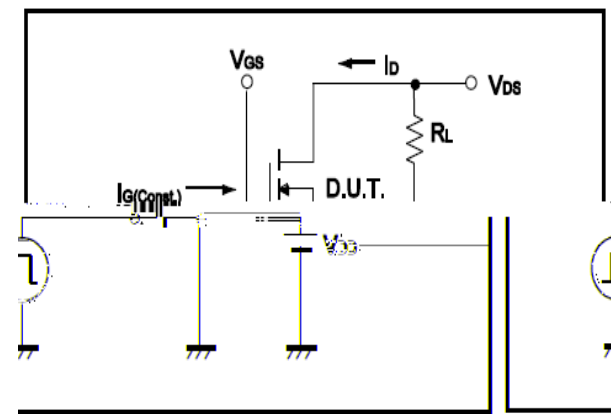


Fig.13 Switching Time Measurement Circuit

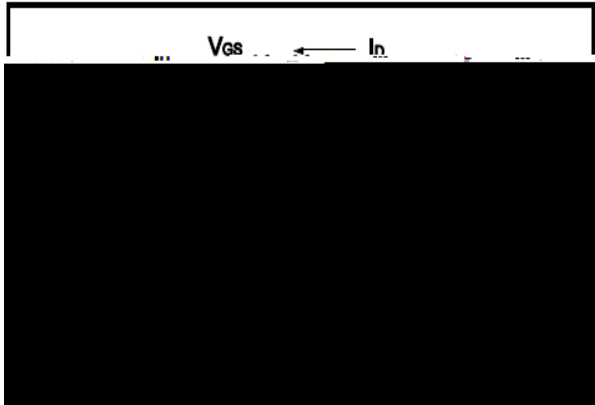


Fig.14 Gate Charge Waveform

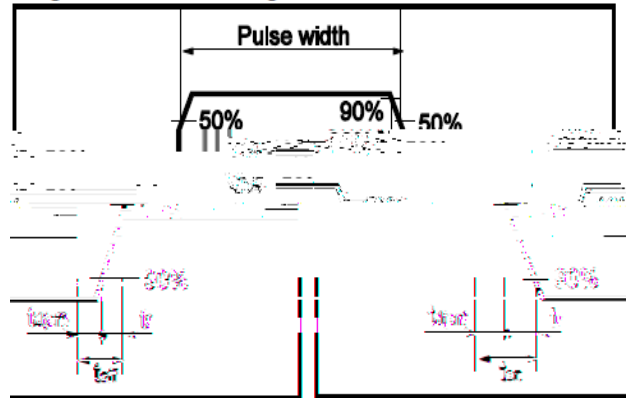


Fig.15 Avalanche Measurement Circuit

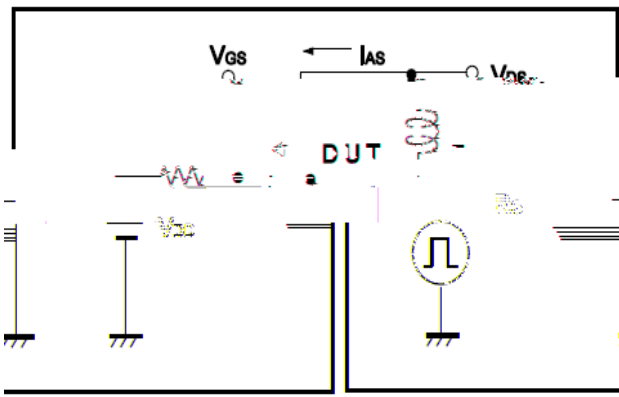
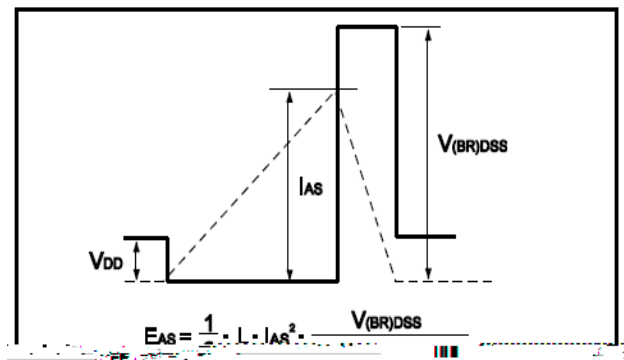
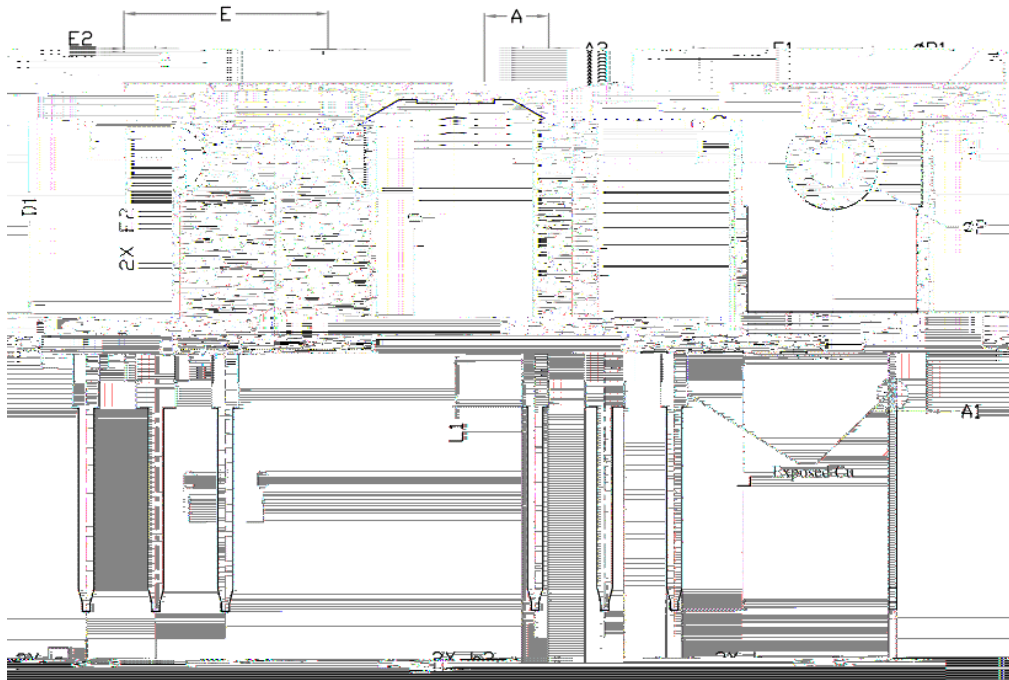


Fig.16 Avalanche Waveform



•Dimensions TO-247



SYMBOL	DIMENSIONS		NOTES
	MIN	MAX	
A	4.83	5.02	5-2
A1	2.29	2.41	2-5
A2	1.50	2.00	2-4
b	1.12	1.20	1-3
b1	1.12	1.29	1-2
b2	1.91	2.00	2-3
b3	1.91	2.00	2-3
b4	2.87	3.00	3-2
b5	2.87	3.00	3-1
b6	0.55	0.60	0-6
b7	0.55	0.60	0-5
D1	20.81	20.95	20-1
D2	16.25	16.51	16-1
D3	0.51	1.19	1-1
E	15.88	16.01	15-1
F1	14.08	14.18	14-1
F2	4.32	4.51	4-1
L1	20.81	20.95	20-1
L2	4.15	4.15	4-1
L3	3.81	3.81	3-1
L4	3.81	3.81	3-1
L5	3.81	3.81	3-1
L6	3.81	3.81	3-1
L7	3.81	3.81	3-1
L8	3.81	3.81	3-1
L9	3.81	3.81	3-1
L10	3.81	3.81	3-1
L11	3.81	3.81	3-1
L12	3.81	3.81	3-1
L13	3.81	3.81	3-1
L14	3.81	3.81	3-1
L15	3.81	3.81	3-1
L16	3.81	3.81	3-1
L17	3.81	3.81	3-1
L18	3.81	3.81	3-1
L19	3.81	3.81	3-1
L20	3.81	3.81	3-1
L21	3.81	3.81	3-1
L22	3.81	3.81	3-1
L23	3.81	3.81	3-1
L24	3.81	3.81	3-1
L25	3.81	3.81	3-1
L26	3.81	3.81	3-1
L27	3.81	3.81	3-1
L28	3.81	3.81	3-1
L29	3.81	3.81	3-1
L30	3.81	3.81	3-1
L31	3.81	3.81	3-1
L32	3.81	3.81	3-1
L33	3.81	3.81	3-1
L34	3.81	3.81	3-1
L35	3.81	3.81	3-1
L36	3.81	3.81	3-1
L37	3.81	3.81	3-1
L38	3.81	3.81	3-1
L39	3.81	3.81	3-1
L40	3.81	3.81	3-1
L41	3.81	3.81	3-1
L42	3.81	3.81	3-1
L43	3.81	3.81	3-1
L44	3.81	3.81	3-1
L45	3.81	3.81	3-1
L46	3.81	3.81	3-1
L47	3.81	3.81	3-1
L48	3.81	3.81	3-1
L49	3.81	3.81	3-1
L50	3.81	3.81	3-1
L51	3.81	3.81	3-1
L52	3.81	3.81	3-1
L53	3.81	3.81	3-1
L54	3.81	3.81	3-1
L55	3.81	3.81	3-1
L56	3.81	3.81	3-1
L57	3.81	3.81	3-1
L58	3.81	3.81	3-1
L59	3.81	3.81	3-1
L60	3.81	3.81	3-1
L61	3.81	3.81	3-1
L62	3.81	3.81	3-1
L63	3.81	3.81	3-1
L64	3.81	3.81	3-1
L65	3.81	3.81	3-1
L66	3.81	3.81	3-1
L67	3.81	3.81	3-1
L68	3.81	3.81	3-1
L69	3.81	3.81	3-1
L70	3.81	3.81	3-1
L71	3.81	3.81	3-1
L72	3.81	3.81	3-1
L73	3.81	3.81	3-1
L74	3.81	3.81	3-1
L75	3.81	3.81	3-1
L76	3.81	3.81	3-1
L77	3.81	3.81	3-1
L78	3.81	3.81	3-1
L79	3.81	3.81	3-1
L80	3.81	3.81	3-1
L81	3.81	3.81	3-1
L82	3.81	3.81	3-1
L83	3.81	3.81	3-1
L84	3.81	3.81	3-1
L85	3.81	3.81	3-1
L86	3.81	3.81	3-1
L87	3.81	3.81	3-1
L88	3.81	3.81	3-1
L89	3.81	3.81	3-1
L90	3.81	3.81	3-1
L91	3.81	3.81	3-1
L92	3.81	3.81	3-1
L93	3.81	3.81	3-1
L94	3.81	3.81	3-1
L95	3.81	3.81	3-1
L96	3.81	3.81	3-1
L97	3.81	3.81	3-1
L98	3.81	3.81	3-1
L99	3.81	3.81	3-1
L100	3.81	3.81	3-1