



•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}	$V_{GS} = 0V, I_D = 250\mu A$	70			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}	$V_{DS} = 0.8 * BV_{DSS}$			1.0	μA
Gate- Source Leakage Current	I_{GSS}	$V_{GS} = \pm 20V, V_{DS} = 0V$			100	nA
Static Drain-source On Resistance		$V_{GS} = 10V, I_D = 50A$				
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	t_{rr}	$I_F = 20A,$ $di/dt = 100A/\mu s$		130		nS
Body Diode Reverse Recovery Charge	Q_{rr}	$I_F = 20A,$ $di/dt = 100A/\mu s$		450		

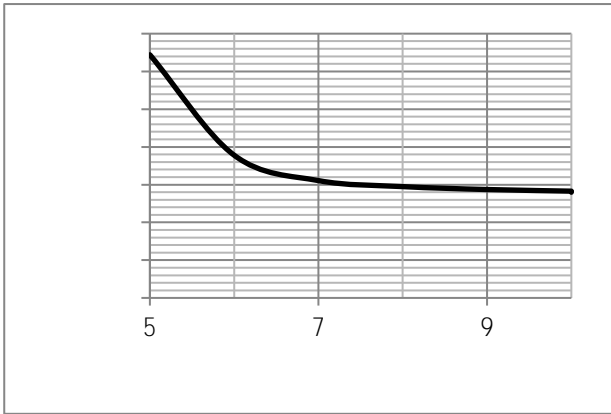


Fig.9 SOA Maximum Safe Operating Area

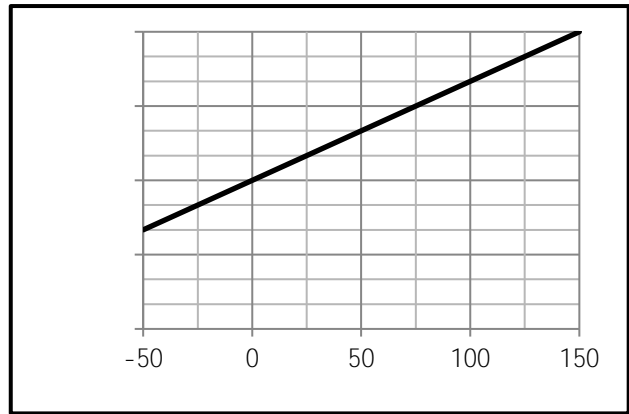


Fig.10 I_D -Junction Temperature

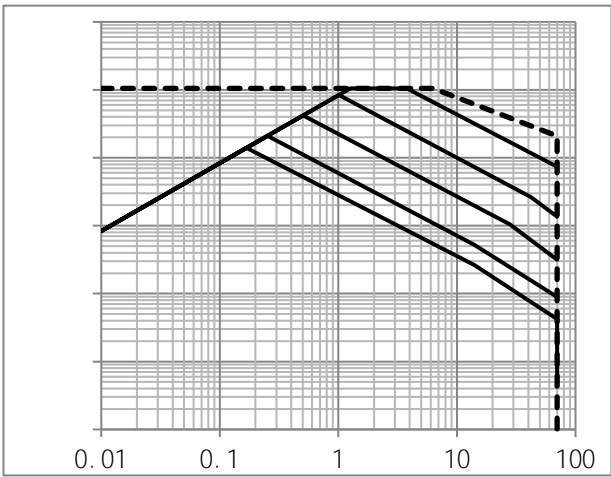


Fig.11 Switching Time Measurement Circuit

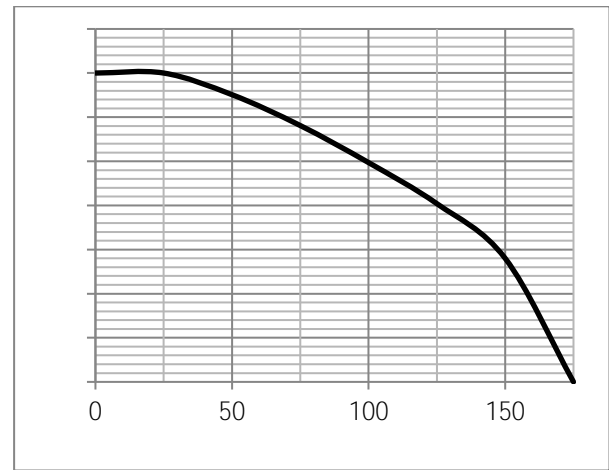
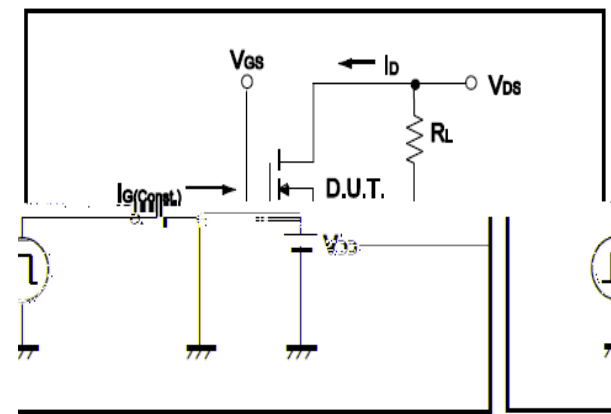


Fig.12 Gate Charge Waveform

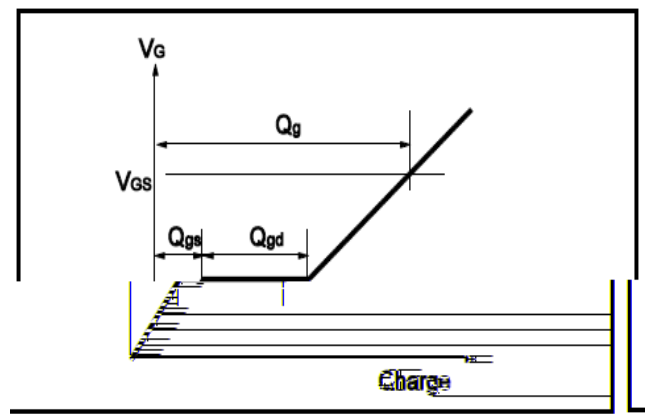


Fig.13 Switching Time Measurement Circuit

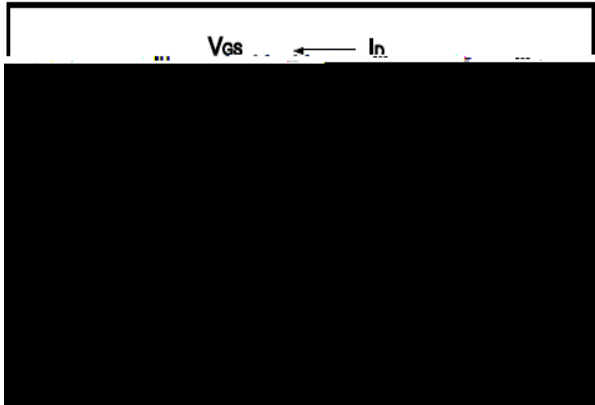


Fig.14 Gate Charge Waveform

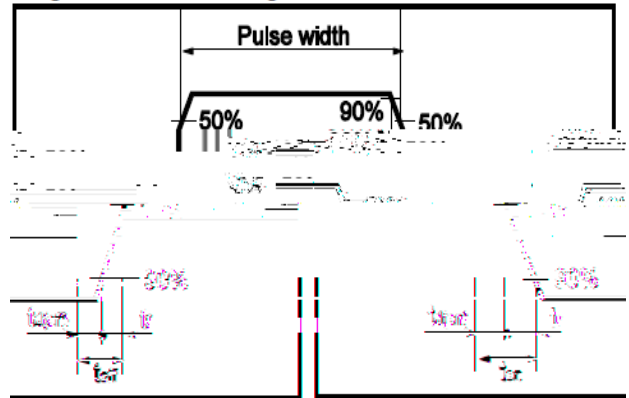


Fig.15 Avalanche Measurement Circuit

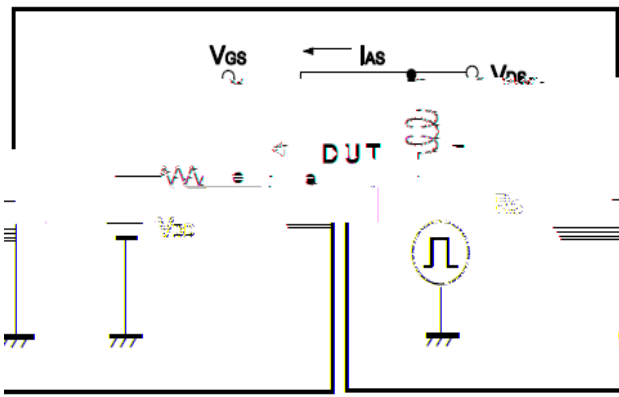
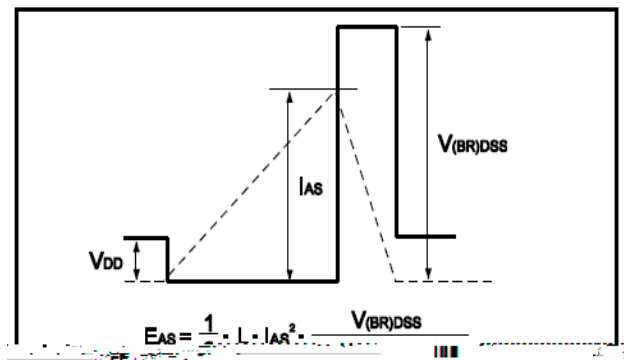
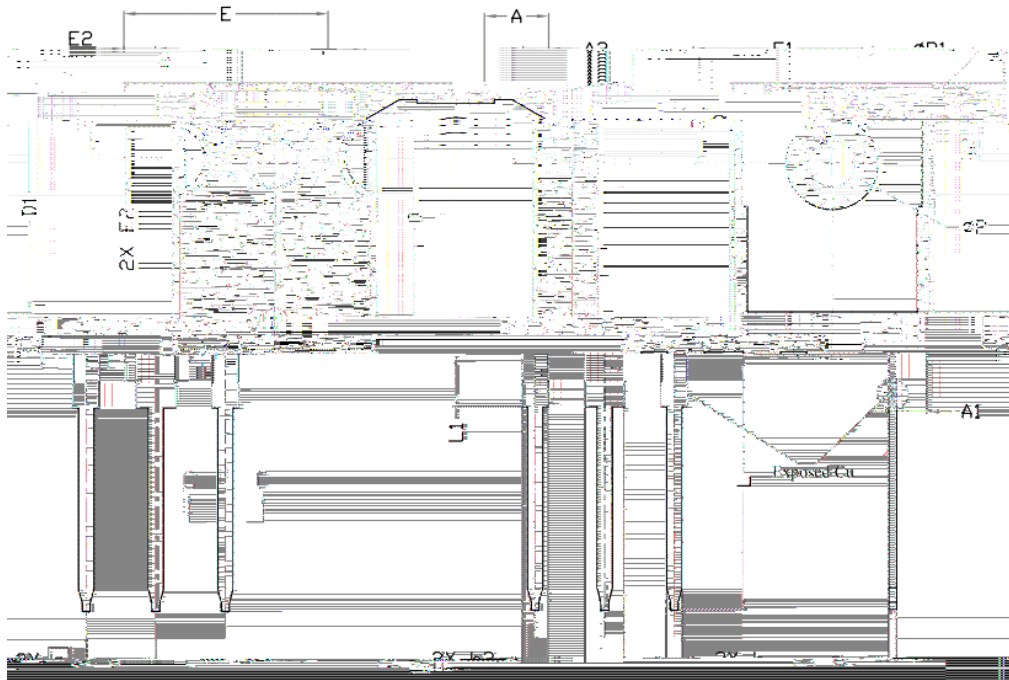


Fig.16 Avalanche Waveform



•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	16-2
D3	0.51	1.19	1-1
E	15.88	16.01	15-2
F1	14.08	14.18	14-1
F2	4.32	4.51	4-2
L1	20.81	20.95	20-1
L2	4.15	4.15	4-1
L3	3.81	3.81	3-3
L4	3.81	3.81	3-4
L5	3.81	3.81	3-5
L6	3.81	3.81	3-6
L7	3.81	3.81	3-7
L8	3.81	3.81	3-8
L9	3.81	3.81	3-9
L10	3.81	3.81	3-10
L11	3.81	3.81	3-11
L12	3.81	3.81	3-12
L13	3.81	3.81	3-13
L14	3.81	3.81	3-14
L15	3.81	3.81	3-15
L16	3.81	3.81	3-16
L17	3.81	3.81	3-17
L18	3.81	3.81	3-18
L19	3.81	3.81	3-19
L20	3.81	3.81	3-20
L21	3.81	3.81	3-21
L22	3.81	3.81	3-22
L23	3.81	3.81	3-23
L24	3.81	3.81	3-24
L25	3.81	3.81	3-25
L26	3.81	3.81	3-26
L27	3.81	3.81	3-27
L28	3.81	3.81	3-28
L29	3.81	3.81	3-29
L30	3.81	3.81	3-30
L31	3.81	3.81	3-31
L32	3.81	3.81	3-32
L33	3.81	3.81	3-33
L34	3.81	3.81	3-34
L35	3.81	3.81	3-35
L36	3.81	3.81	3-36
L37	3.81	3.81	3-37
L38	3.81	3.81	3-38
L39	3.81	3.81	3-39
L40	3.81	3.81	3-40
L41	3.81	3.81	3-41
L42	3.81	3.81	3-42
L43	3.81	3.81	3-43
L44	3.81	3.81	3-44
L45	3.81	3.81	3-45
L46	3.81	3.81	3-46
L47	3.81	3.81	3-47
L48	3.81	3.81	3-48
L49	3.81	3.81	3-49
L50	3.81	3.81	3-50
L51	3.81	3.81	3-51
L52	3.81	3.81	3-52
L53	3.81	3.81	3-53
L54	3.81	3.81	3-54
L55	3.81	3.81	3-55
L56	3.81	3.81	3-56
L57	3.81	3.81	3-57
L58	3.81	3.81	3-58
L59	3.81	3.81	3-59
L60	3.81	3.81	3-60
L61	3.81	3.81	3-61
L62	3.81	3.81	3-62
L63	3.81	3.81	3-63
L64	3.81	3.81	3-64
L65	3.81	3.81	3-65
L66	3.81	3.81	3-66
L67	3.81	3.81	3-67
L68	3.81	3.81	3-68
L69	3.81	3.81	3-69
L70	3.81	3.81	3-70
L71	3.81	3.81	3-71
L72	3.81	3.81	3-72
L73	3.81	3.81	3-73
L74	3.81	3.81	3-74
L75	3.81	3.81	3-75
L76	3.81	3.81	3-76
L77	3.81	3.81	3-77
L78	3.81	3.81	3-78
L79	3.81	3.81	3-79
L80	3.81	3.81	3-80
L81	3.81	3.81	3-81
L82	3.81	3.81	3-82
L83	3.81	3.81	3-83
L84	3.81	3.81	3-84
L85	3.81	3.81	3-85
L86	3.81	3.81	3-86
L87	3.81	3.81	3-87
L88	3.81	3.81	3-88
L89	3.81	3.81	3-89
L90	3.81	3.81	3-90
L91	3.81	3.81	3-91
L92	3.81	3.81	3-92
L93	3.81	3.81	3-93
L94	3.81	3.81	3-94
L95	3.81	3.81	3-95
L96	3.81	3.81	3-96
L97	3.81	3.81	3-97
L98	3.81	3.81	3-98
L99	3.81	3.81	3-99
L100	3.81	3.81	3-100