

The ZM180P02L combines advanced trench MOSFET technology with a low resistance package to provide extremely low $R_{DS(ON)}$. This device is ideal for load switch and battery protection applications.

Advance high cell density Trench technology
 $R_{DS(ON)}$ to minimize conductive loss

$T_C = 25$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-20	V
Gate-Source Voltage	V_{GS}	± 8	V
Continuous Drain Current	$I_{D@T_C=25}$	-18	A
	$I_{D@T_C=75}$	-13.68	A
	$I_{D@T_C=100}$	-11.34	A
Pulsed Drain Current	I_{DM}	-54	A
Total Power Dissipation	$P_D@T_C=25$	18	W
Total Power Dissipation	$P_D@T_A=25$	0.9	W
Operating Junction Temperature	T_J	-55 to 150	
Storage Temperature	T_{STG}	-55 to 150	
Single Pulse Avalanche Energy	E_{AS}	30	mJ

Fig.1 Power Dissipation Derating Curve

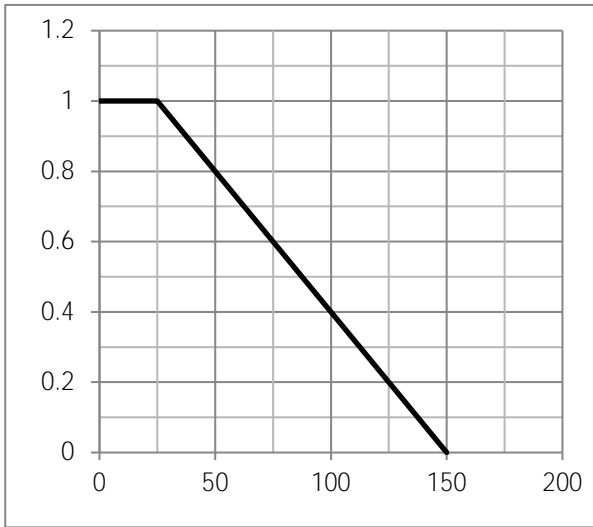


Fig.2 Typical output Characteristics

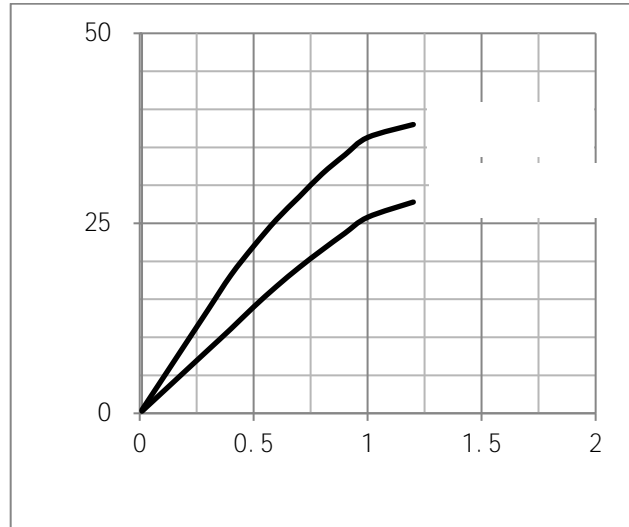


Fig.3 Threshold Voltage V.S Junction Temperature

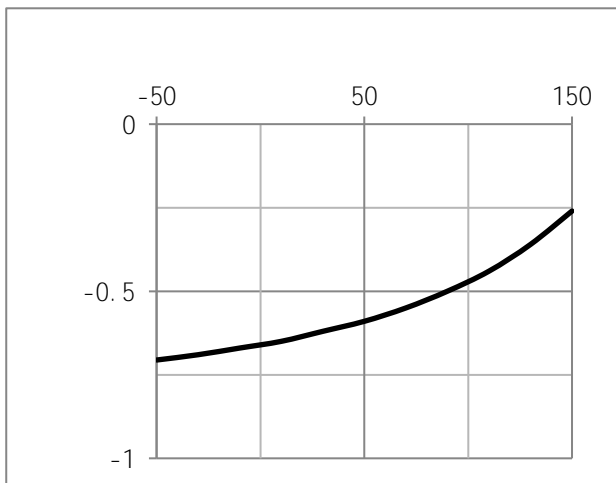


Fig.4 Resistance V.S Drain Current

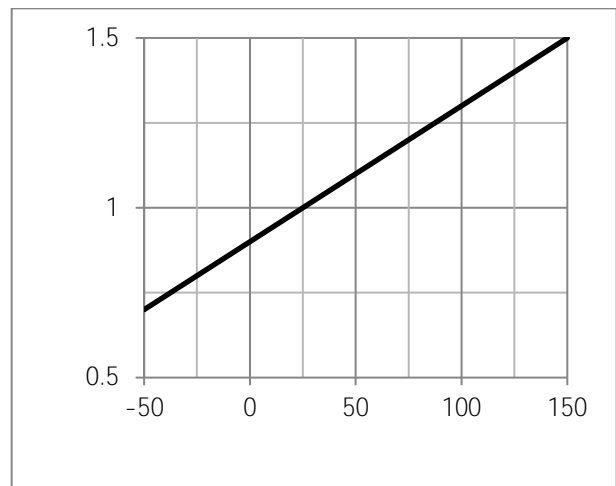
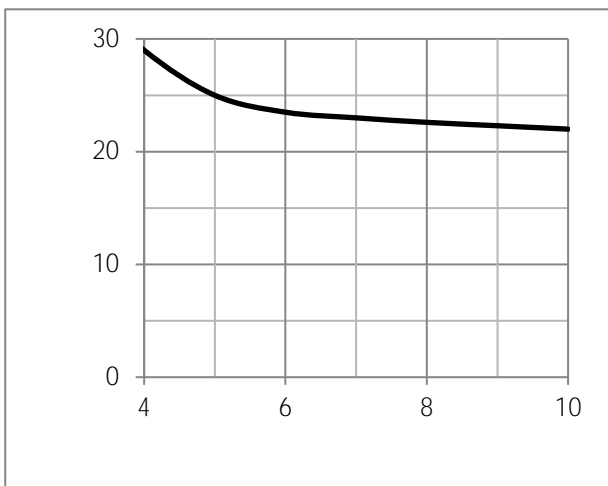
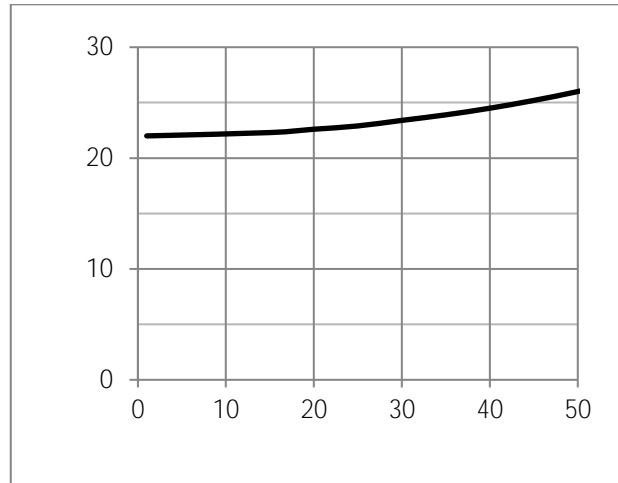


Fig.7 Switching Time Measurement Circuit

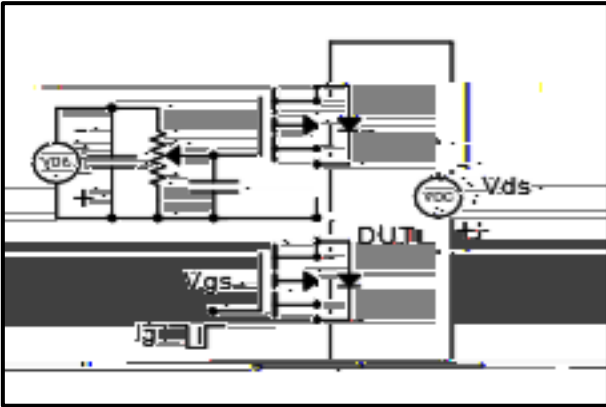


Fig.8 Gate Charge Waveform

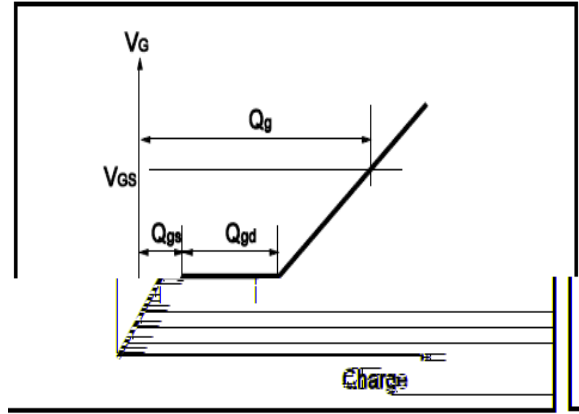


Fig.9 Switching Time Measurement Circuit

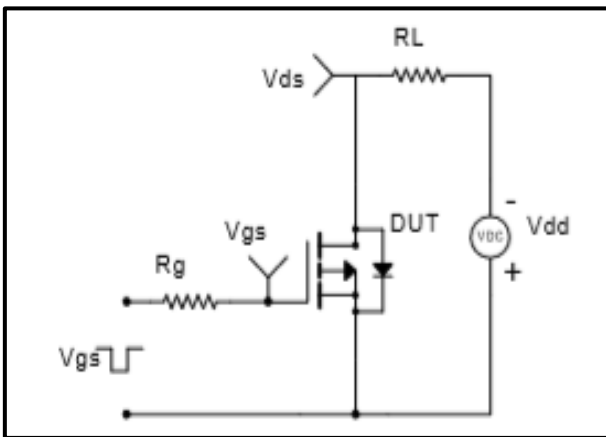


Fig.10 Gate Charge Waveform

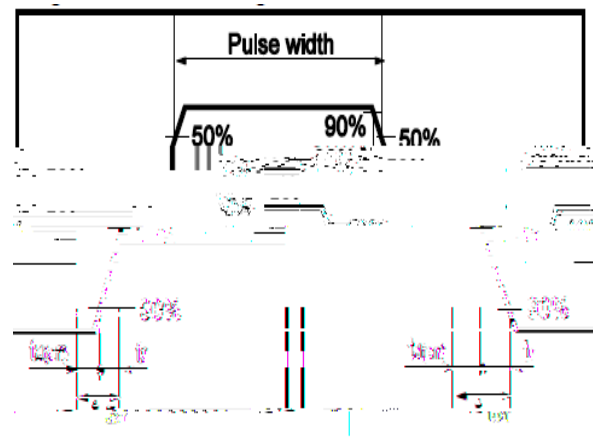


Fig.11 Avalanche Measurement Circuit

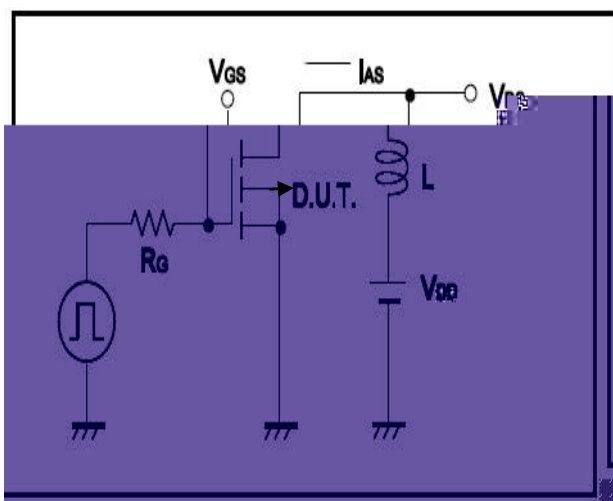
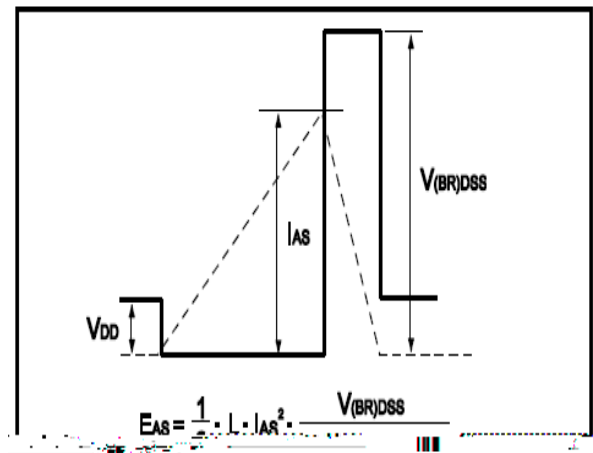
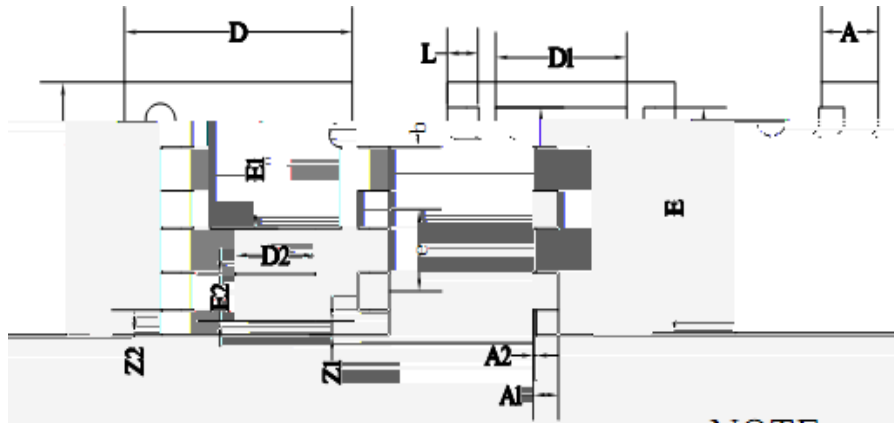


Fig.12 Avalanche Waveform



(DFN2*2)

Unit mm



NOTE:

All dimensions are in mm

NO.	MIN	MAX	UNIT	NO.	MIN	UNIT
1	200	205	mm	11	0.30	mm
2	200	205	mm	12	0.25	mm
3	115	120	mm	13	0.25	mm
4	125	130	mm	14	0.25	mm
5	0.25	0.30	mm	15	0.25	mm
6	0.30	0.35	mm	16	0.25	mm
7	0.30	0.35	mm	17	0.25	mm
8	0.30	0.35	mm	18	0.25	mm
9	0.30	0.35	mm	19	0.25	mm
10	0.30	0.35	mm	20	0.25	mm
21	0.30	0.35	mm	22	0.25	mm
23	0.30	0.35	mm	24	0.25	mm
25	0.30	0.35	mm	26	0.25	mm
27	0.30	0.35	mm	28	0.25	mm
29	0.30	0.35	mm	30	0.25	mm
31	0.30	0.35	mm	32	0.25	mm
33	0.30	0.35	mm	34	0.25	mm
35	0.30	0.35	mm	36	0.25	mm
37	0.30	0.35	mm	38	0.25	mm
39	0.30	0.35	mm	40	0.25	mm
41	0.30	0.35	mm	42	0.25	mm
43	0.30	0.35	mm	44	0.25	mm
45	0.30	0.35	mm	46	0.25	mm
47	0.30	0.35	mm	48	0.25	mm
49	0.30	0.35	mm	50	0.25	mm
51	0.30	0.35	mm	52	0.25	mm
53	0.30	0.35	mm	54	0.25	mm
55	0.30	0.35	mm	56	0.25	mm
57	0.30	0.35	mm	58	0.25	mm
59	0.30	0.35	mm	60	0.25	mm
61	0.30	0.35	mm	62	0.25	mm
63	0.30	0.35	mm	64	0.25	mm
65	0.30	0.35	mm	66	0.25	mm
67	0.30	0.35	mm	68	0.25	mm
69	0.30	0.35	mm	70	0.25	mm
71	0.30	0.35	mm	72	0.25	mm
73	0.30	0.35	mm	74	0.25	mm
75	0.30	0.35	mm	76	0.25	mm
77	0.30	0.35	mm	78	0.25	mm
79	0.30	0.35	mm	80	0.25	mm
81	0.30	0.35	mm	82	0.25	mm
83	0.30	0.35	mm	84	0.25	mm
85	0.30	0.35	mm	86	0.25	mm
87	0.30	0.35	mm	88	0.25	mm
89	0.30	0.35	mm	90	0.25	mm
91	0.30	0.35	mm	92	0.25	mm
93	0.30	0.35	mm	94	0.25	mm
95	0.30	0.35	mm	96	0.25	mm
97	0.30	0.35	mm	98	0.25	mm
99	0.30	0.35	mm	100	0.25	mm