

**General Description**

It 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.

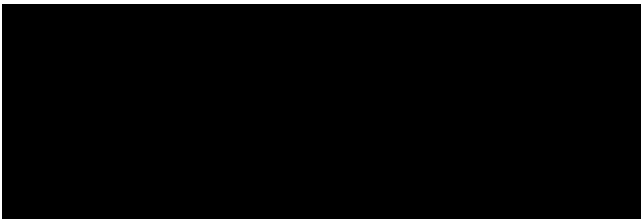
Features

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

Application

Synchronous Rectifier

Motor driver

Ordering Information:**Absolute Maximum Ratings** $T_C=25$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	12	V
Continuous Drain Current	$I_D @TC=25$	120	A
	$I_D @TC=75$	91	A
	$I_D @TC=100$	75	A
Pulsed Drain Current	I_{DM}	360	A
Total Power Dissipation	$P_D @TC=25$	80	W
Total Power Dissipation	$P_D @TA=25$	3.2	W
Operating Junction Temperature	T_J	-55 to 150	
Storage Temperature	T_{STG}	-55 to 150	
Single Pulse Avalanche Energy	E_{AS}	400	mJ



Fig.1 Power Dissipation



Fig.2 Typical output Characteristics

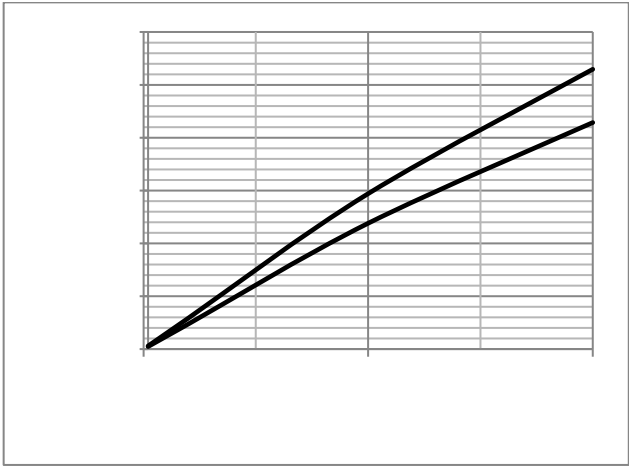


Fig.3 Threshold Voltage V.S Junction Temperature

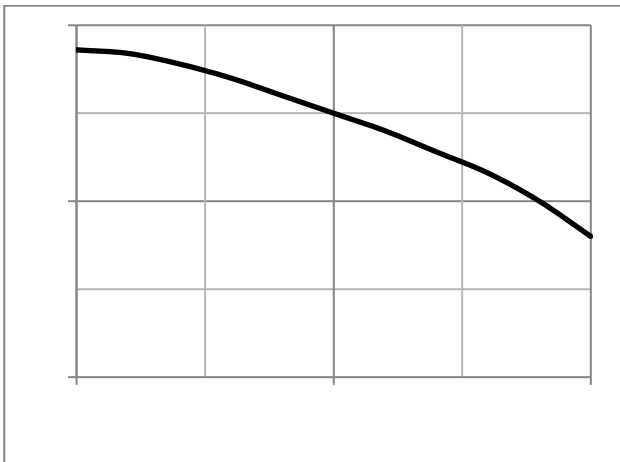


Fig.4 Resistance V.S Drain Current

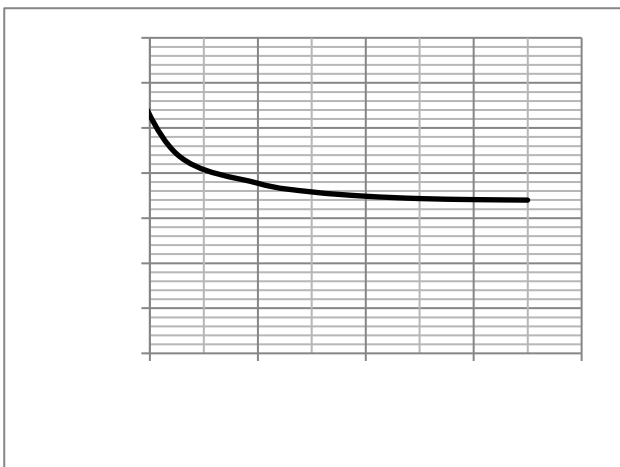
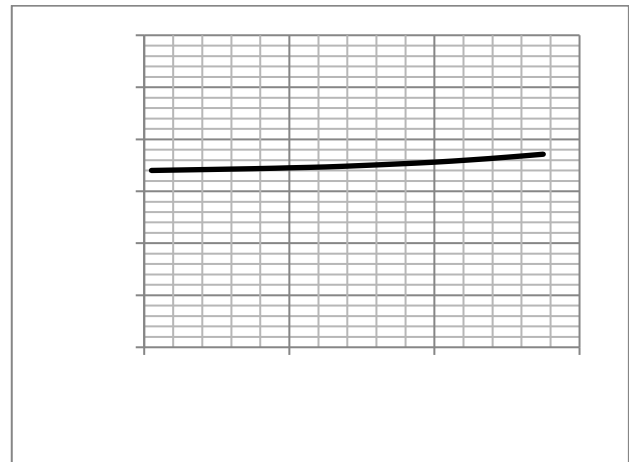


Fig.7 Gate Charge Characteristics

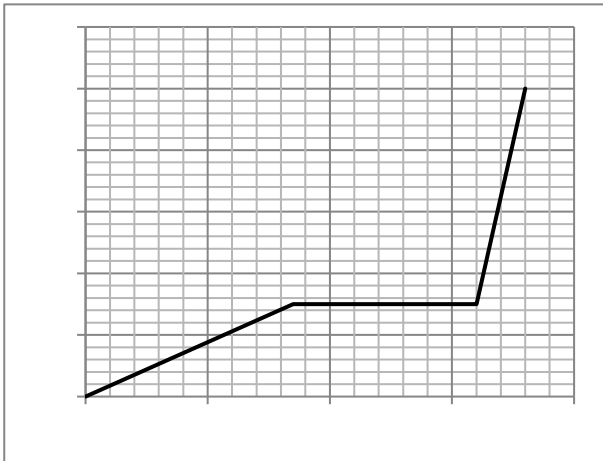


Fig.8 Capacitance vs Vds

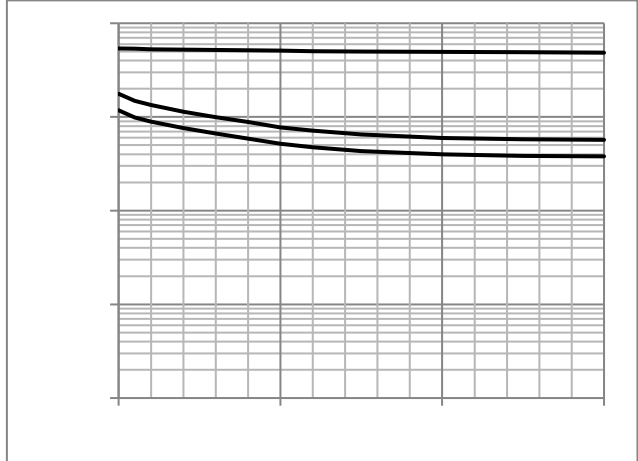


Fig.9 SOA Maximum Safe Operating Area

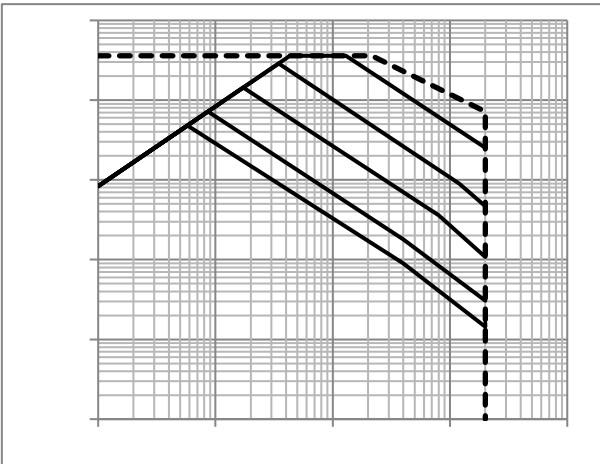


Fig.10 ID-Junction Temperature

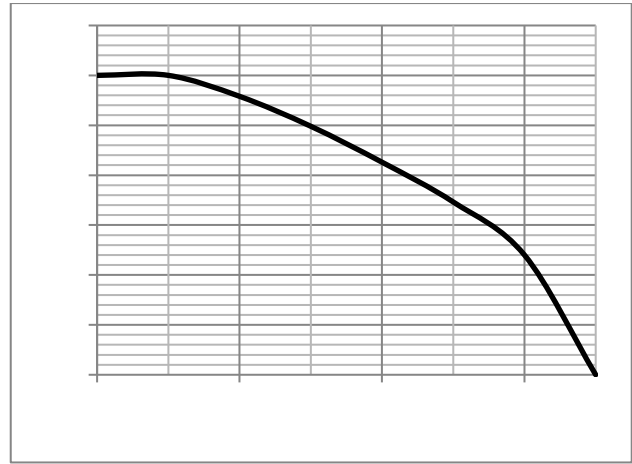


Fig.11 Switching Time Measurement Circuit

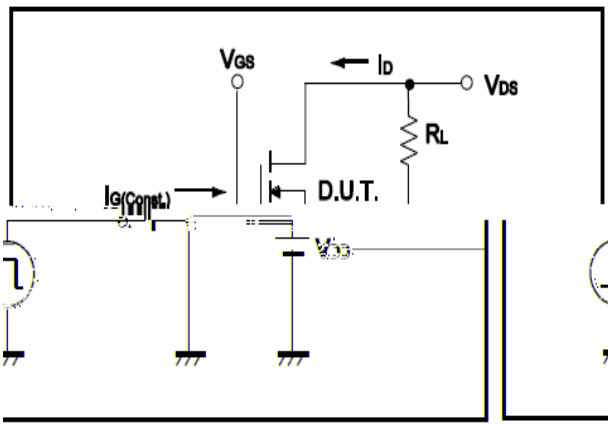


Fig.12 Gate Charge Waveform

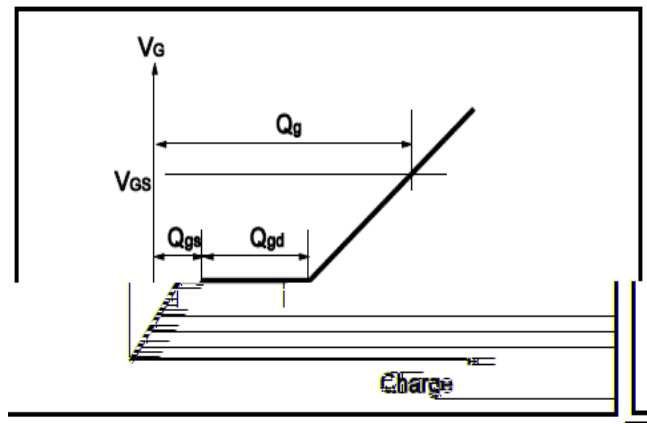




Fig.13 Resistive Switching Test Circuit

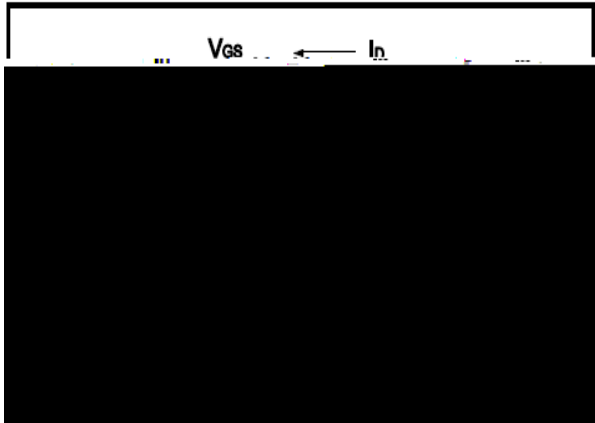


Fig.14 Resistive Switching Test Waveform

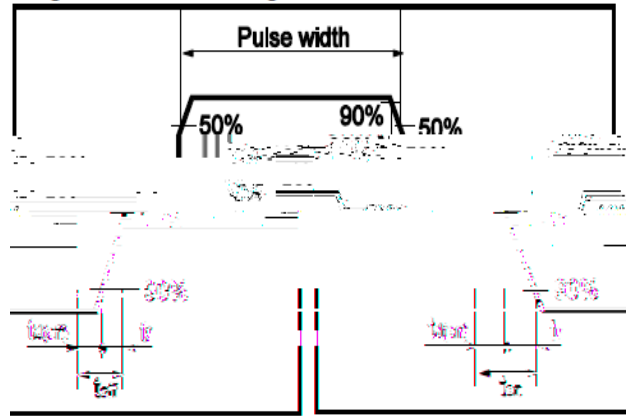


Fig.15 Avalanche Measurement Circuit

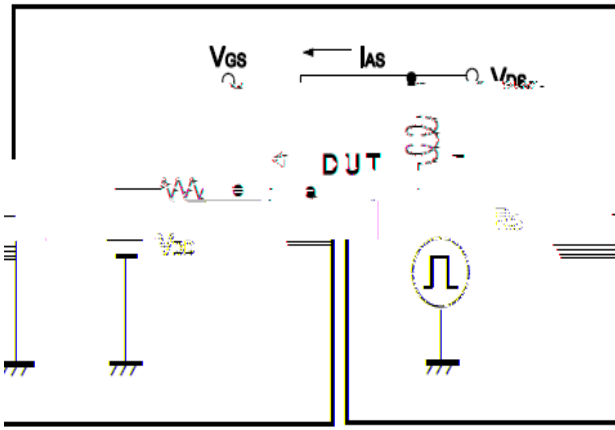
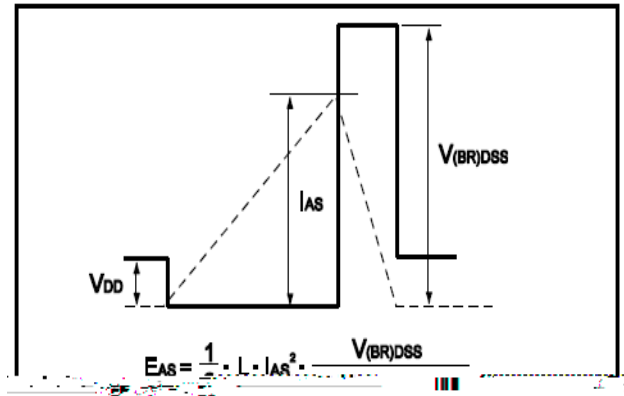


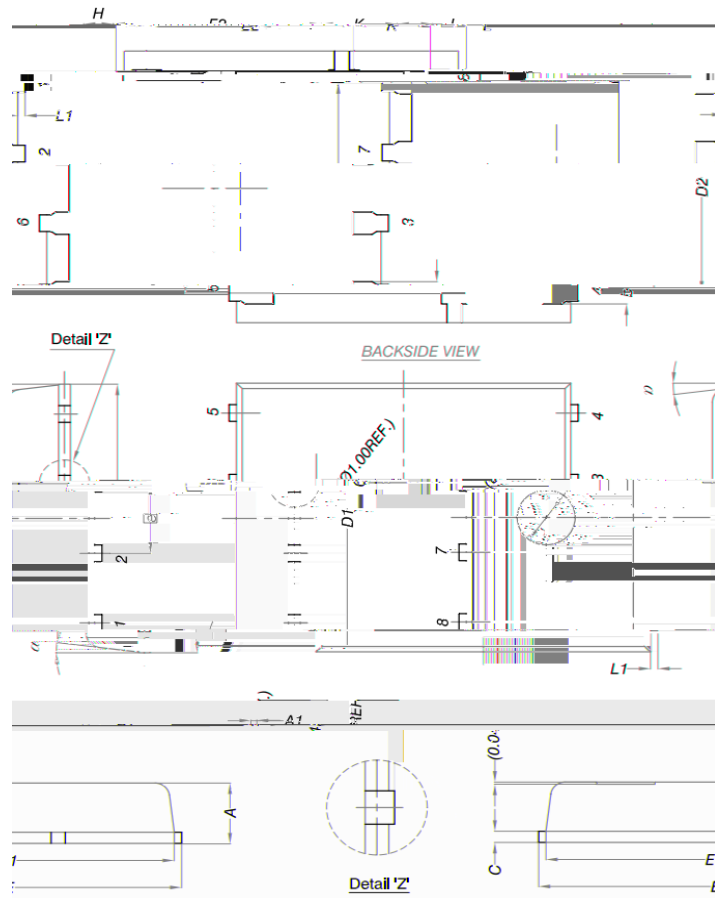
Fig.16 Avalanche Waveform





Dimensions DFN5x6

Unit mm



DIM.	MILLIMETERS		
	MIN.	NOM.	MAX.
A	0.90	1.00	1.10
A1	0	-	0.05
b	0.33	0.41	0.51
C	0.20	0.25	0.30
D1	4.80	4.90	5.00
D2	3.61	3.81	3.96

