



General Description

The ZM075N03D 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

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

Application

nd Synchronous Rectifier

Product Summary



Ordering Information:

Part NO.	
Marking	
Packing Information	REEL TAPE
Basic ordering unit (pcs)	2500

Absolute Maximum Ratings $T_C = 25$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	30	V
Gate-Source Voltage	V_{GS}	20	V
Continuous Drain Current	$I_{D@TC=25^{\circ}C}$	55	A
	$I_{D@TC=75^{\circ}C}$	42	A
	$I_{D@TC=100^{\circ}C}$	35	A
Pulsed Drain Current (Note 1)	I_{DM}	130	A
Total Power Dissipation($TC=25^{\circ}C$)	$P_D@TC=25^{\circ}C$	55	W
Total Power Dissipation($TA=25^{\circ}C$)	$P_D@TA=25^{\circ}C$	2	W
Operating Junction Temperature	T_J	-55 to 150	$^{\circ}C$
Storage Temperature	T_{STG}	-55 to 150	$^{\circ}C$
Single Pulse Avalanche Energy	E_{AS}	110	mJ



Turn-ON Rise time			12		ns
Turn-Off Delay time			26		ns
Turn-Off Fall time			7.5		ns

Note: ①

;

Fig.1 Power Dissipation

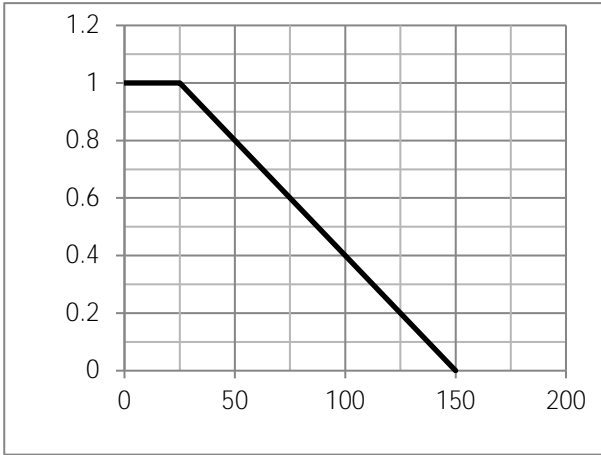


Fig.2 Typical output Characteristics

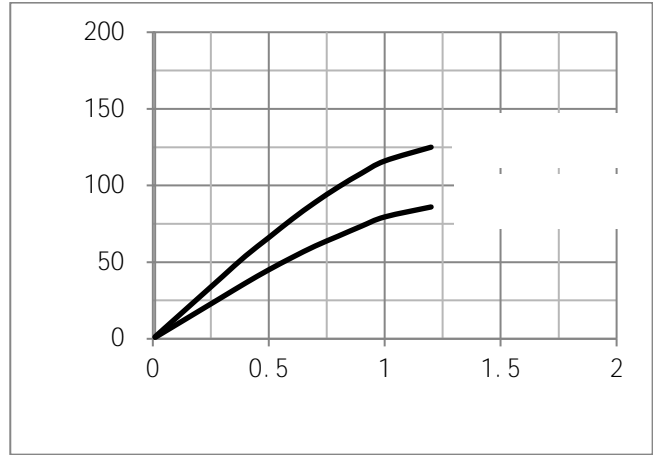


Fig.3 Threshold Voltage V.S Junction Temperature

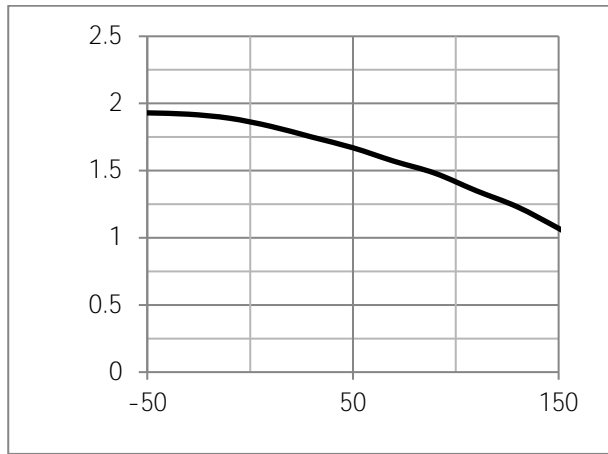


Fig.4 Resistance V.S Drain Current

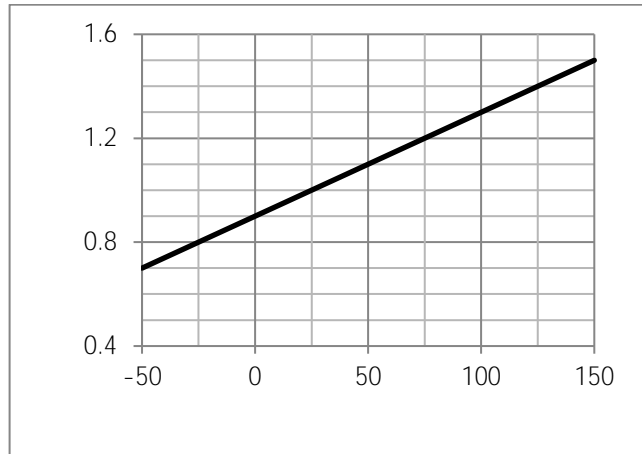
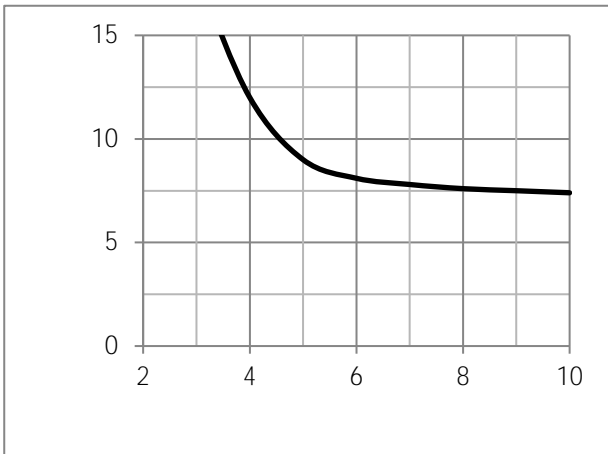
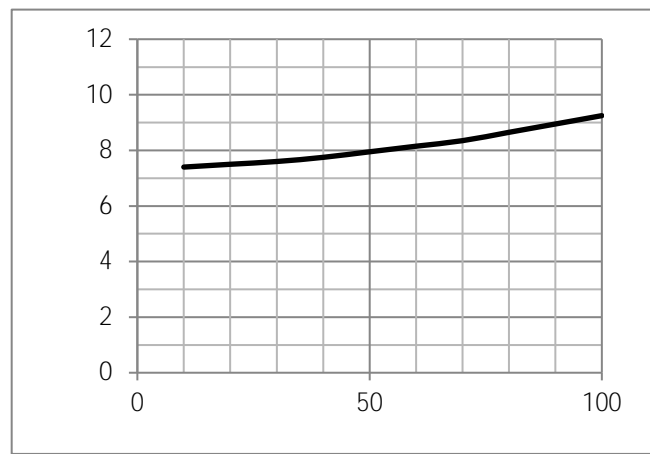




Fig.7 Switching Time Measurement Circuit

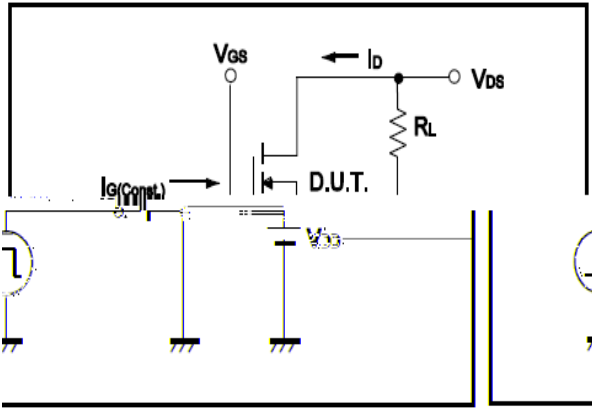


Fig.8 Gate Charge Waveform

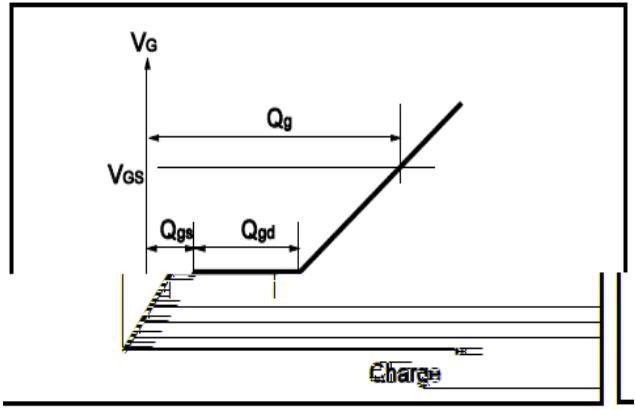


Fig.9 Switching Time Measurement Circuit

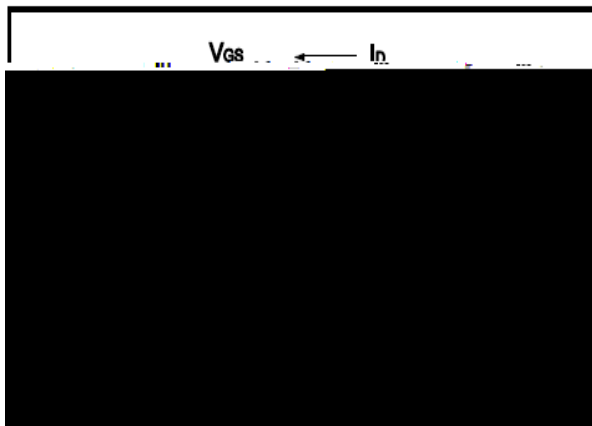


Fig.10 Gate Charge Waveform

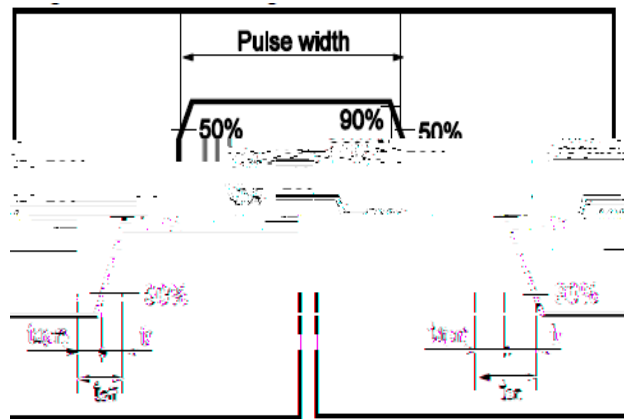


Fig.11 Avalanche Measurement Circuit

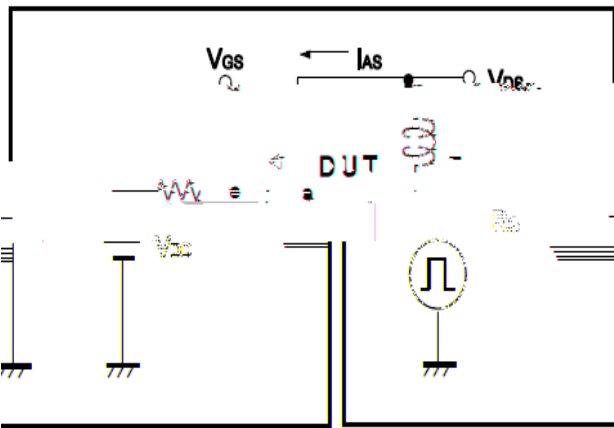
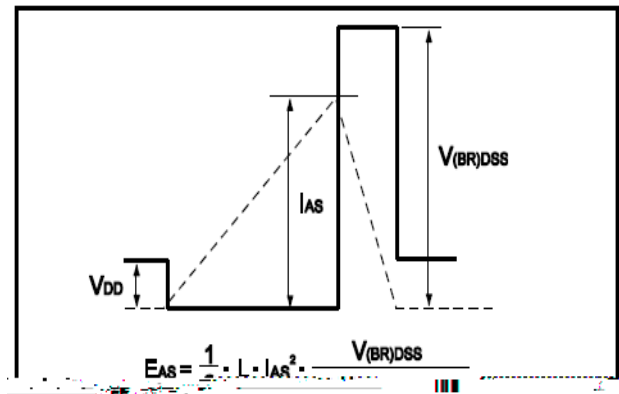


Fig.12 Avalanche Waveform





Dimensions(TO-252)

Unit mm

SYMBOL	mi n	max	SYMBOL	mi n	max
A	2.10	2.50	B	0.85	1.25
b	0.50	0.80	b1	0.50	0.90
b2	0.45	0.70	C	0.45	0.70
D	6.30	6.75	D1	5.10	5.50
E	5.30	6.30	e1	2.25	2.35
L1	9.20	10.60	e2	4.45	4.75
L2	0.90	1.75	L3	0.60	1.10
K	0.00	0.23			

