

General Description

The ZM025N04HD combines advanced trench MOSFET technology with a low resistance package to provide extremely low $R_{DS(ON)}$.

Features

Trench technology
 $R_{DS(ON)}$ to minimize conductive loss

Application

nd Synchronous Rectifier

Product Summary

Ordering Information:

Part NO.	ZM025N04HD
Marking	ZM025N04H
Packing Information	REEL TAPE
Basic ordering unit (pcs)	2500

Absolute Maximum Ratings $T_C = 25$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	40	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current	$I_{D@TC=25}$	100	A
	$I_{D@TC=75}$	76	A
	$I_{D@TC=100}$	63	A
Pulsed Drain Current	I_{DM}	300	A
Total Power Dissipation	$P_D@TC=25$	85	W
Total Power Dissipation	$P_D@TA=25$	3.5	W
Operating Junction Temperature	T_J	-55 to 150	
Storage Temperature	T_{STG}	-55 to 150	
Single Pulse Avalanche Energy@L=0.1mH	E_{AS}	405	mJ

Fig.1 Gate-Charge Characteristics

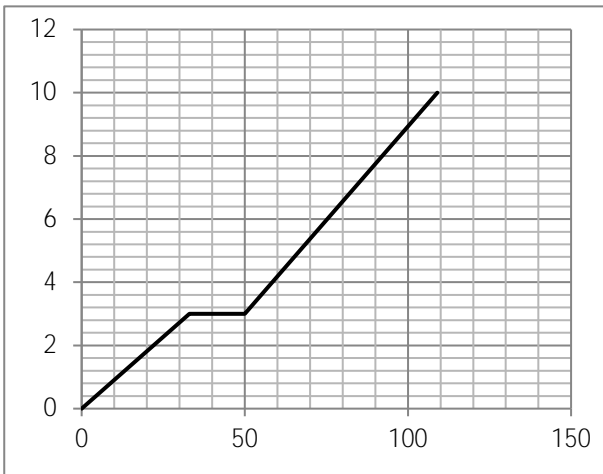


Fig.2 Capacitance Characteristics

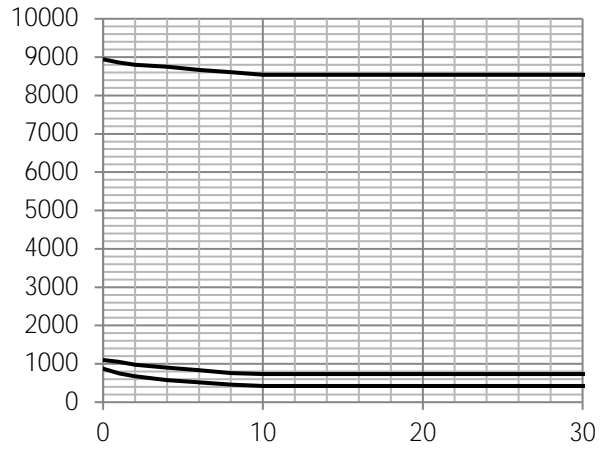


Fig.3 Power Dissipation

Fig.4 Typical output Characteristics

Fig.5 Threshold Voltage V.S Junction Temperature

Fig.6 Resistance V.S Drain Current

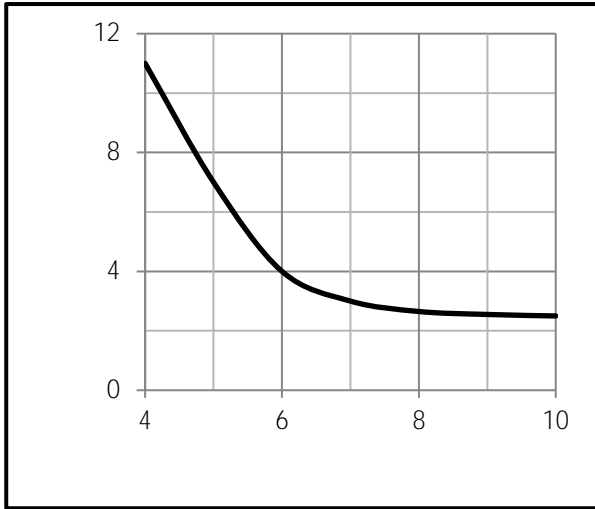


Fig.9 Switching Time Measurement Circuit

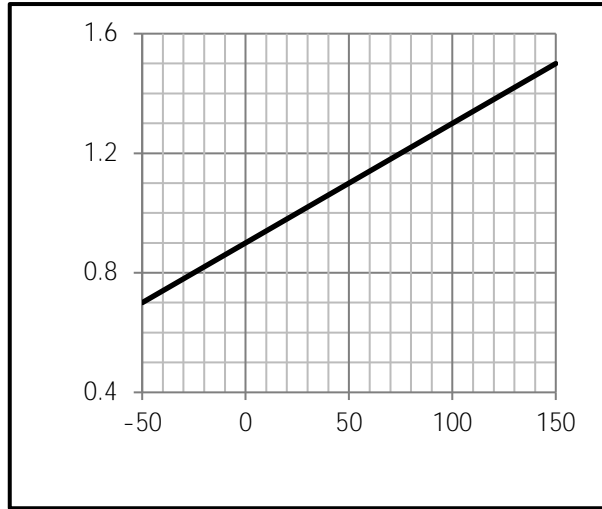


Fig.10 Gate Charge Waveform

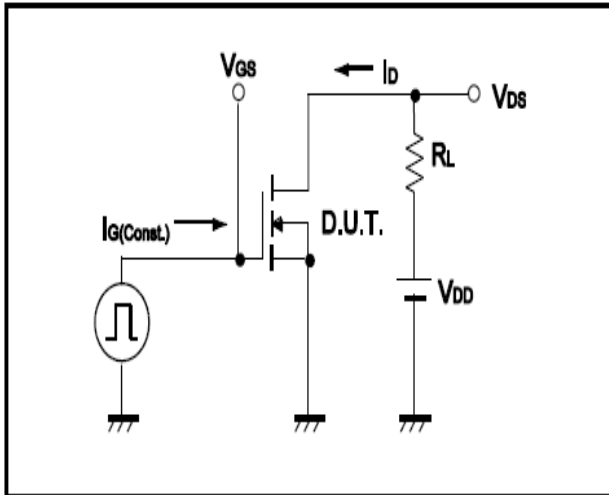


Fig.11 Switching Time Measurement Circuit

Fig.12 Gate Charge Waveform



Dimensions (TO-252)

Unit mm

SYMBOL	min	max	SYMBOL	min	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			

