



General Description

The ZM031N04D combines advanced trench MOSFET technology with a low resistance package to provide extremely low $R_{DS(ON)}$.

Product Summary



Features

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



Application

nd Synchronous Rectifier

Ordering Information:

Part NO.	ZM031N04D
Marking	ZM031N04
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	$I_{D@TC=25}$	120	A
	$I_{D@TC=75}$	91.2	A
	$I_{D@TC=100}$	75.6	A
Pulsed Drain Current	I_{DM}	280	A
Total Power Dissipation($TC=25$)	$P_D@TC=25$	70	W
Total Power Dissipation($TA=25$)	$P_D@TA=25$	2.5	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}	180	mJ
Avalanche Current@ $L=0.1mH$	I_{AS}	60	A

**Thermal resistance**

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	R_{thJC}	-	-	2.1	° C/W
Thermal resistance, junction - ambient	R_{thJA}	-	-	65	° C/W
Soldering temperature, wave soldering for 10s	T_{sold}	-	-	265	° C



Fig.1 Power Dissipation

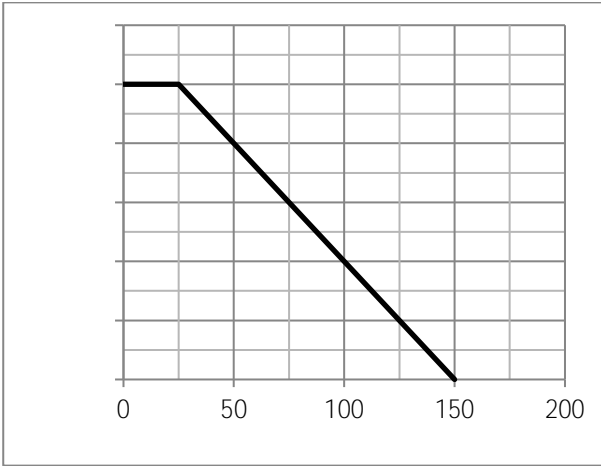


Fig.2 Typical output Characteristics

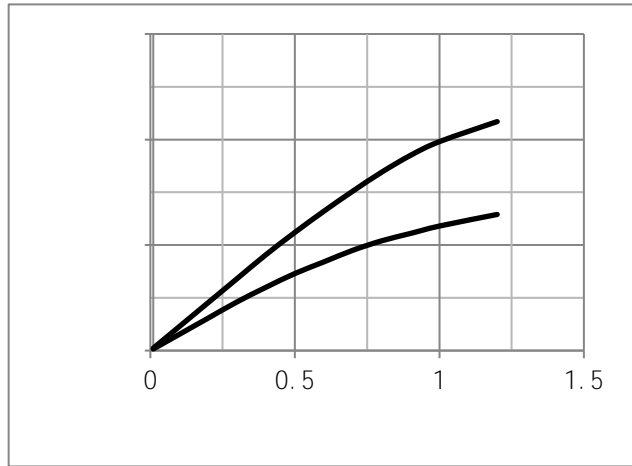


Fig.3 Threshold Voltage V.S Junction Temperature

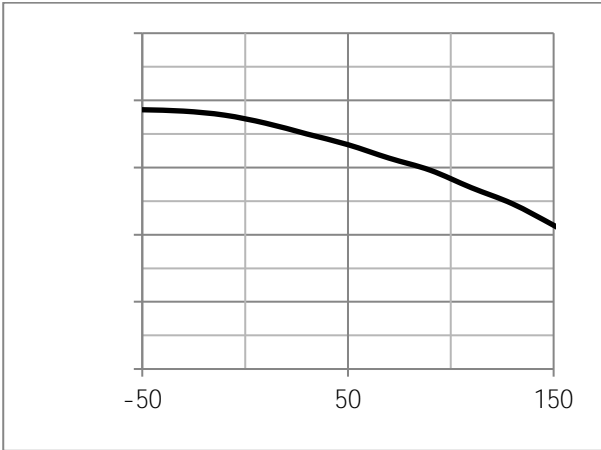


Fig.4 Resistance V.S Drain Current

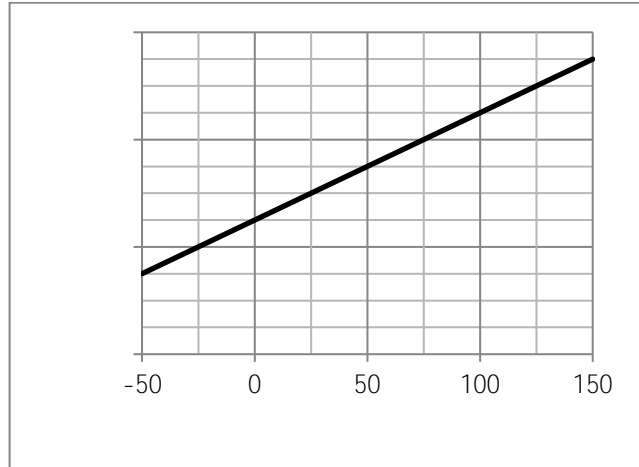
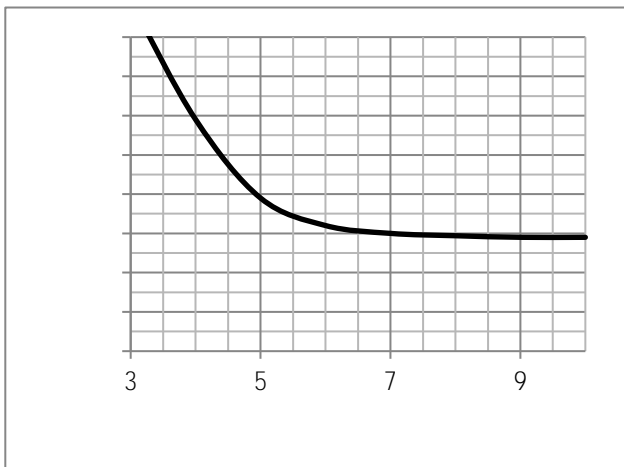
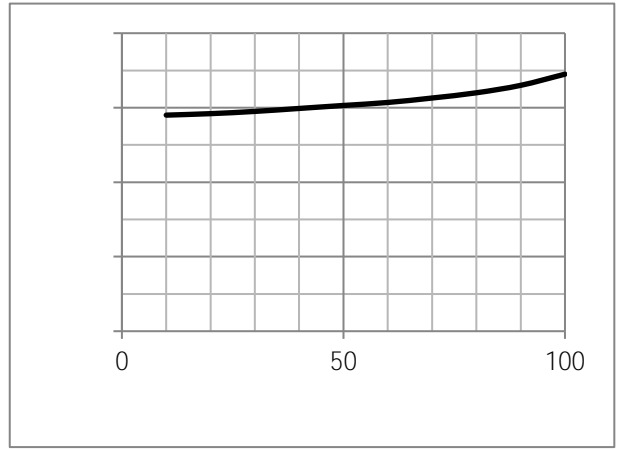




Fig.7

