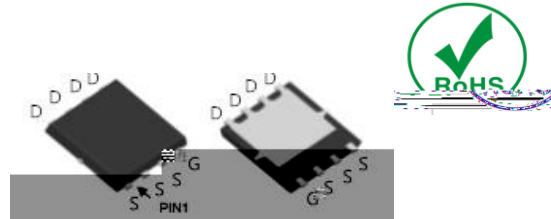


### Product Summary

The ZM065N02M combines advanced trench MOSFET technology with a low resistance package to provide extremely low  $R_{DS(ON)}$ .



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



nd Synchronous Rectifier

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

$T_C = 25$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DS}$	20	V
Gate-Source Voltage	$V_{GS}$	12	V
Continuous Drain Current	$I_{D@TC=25}$	50	A
	$I_{D@TC=75}$	38	A
	$I_{D@TC=100}$	32	A
Pulsed Drain Current	$I_{DM}$	100	A
Total Power Dissipation	$P_D@TC=25$	43	W
Total Power Dissipation	$P_D@TA=25$	2.3	W
Operating Junction Temperature	$T_J$	-55 to 150	
Storage Temperature	$T_{STG}$	-55 to 150	
Single Pulse Avalanche Energy	$E_{AS}$	70	mJ

**Thermal resistance**

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	$R_{thJC}$	-	-	2.9	$^{\circ}C/W$
Thermal resistance, junction - ambient	$R_{thJA}$	-	-	54	$^{\circ}C/W$
Soldering temperature, wave soldering for 10s	$T_{sold}$	-	-	265	$^{\circ}C$

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS} = 0V, I_D = 250\mu A$	20			V
Gate Threshold Voltage	$V_{GS(TH)}$	$V_{GS} = V_{DS}, I_D = 250\mu A$	0.3	0.65	1.0	V
Drain-Source Leakage Current	$I_{DSS}$	$V_{DS} = 20V, V_{GS} = 0V$			1.0	$\mu A$
Gate- Source Leakage Current	$I_{GSS}$	$V_{GS} = \pm 12V, V_{DS} = 0V$			100	nA
Static Drain-source On Resistance		$V_{GS} = 4.5V, I_D = 16A$				
		$V_{GS} = 2.5V, I_D = 12A$				
Forward Trans conductance	$g_{FS}$	$V_{DS} = 25V, I_D = 10A$				

Fig.1 Power Dissipation

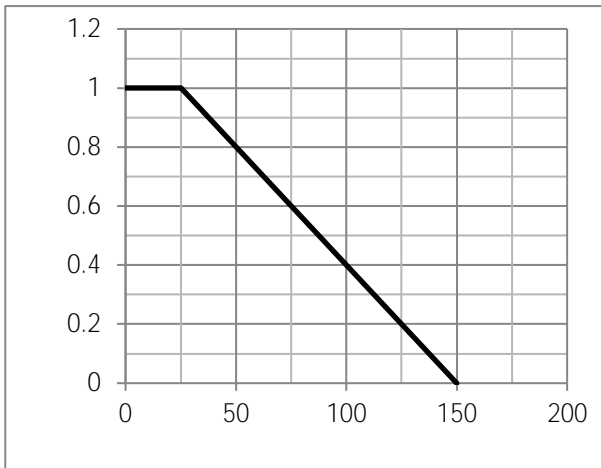


Fig.2 Typical output Characteristics

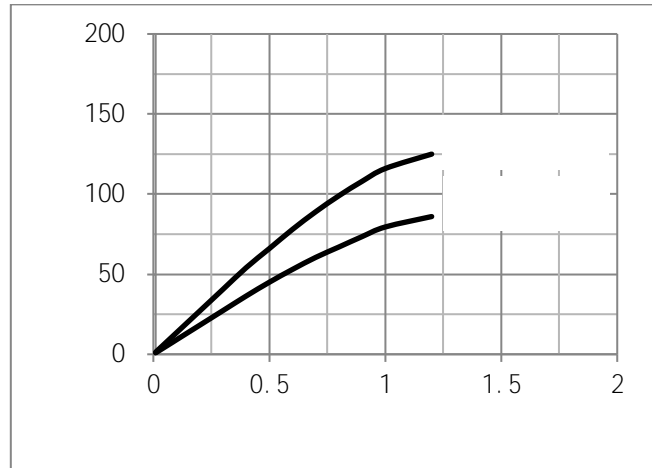


Fig.3 Threshold Voltage V.S Junction Temperature

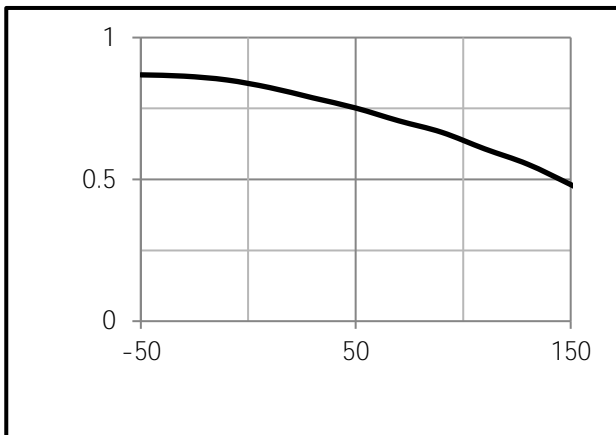
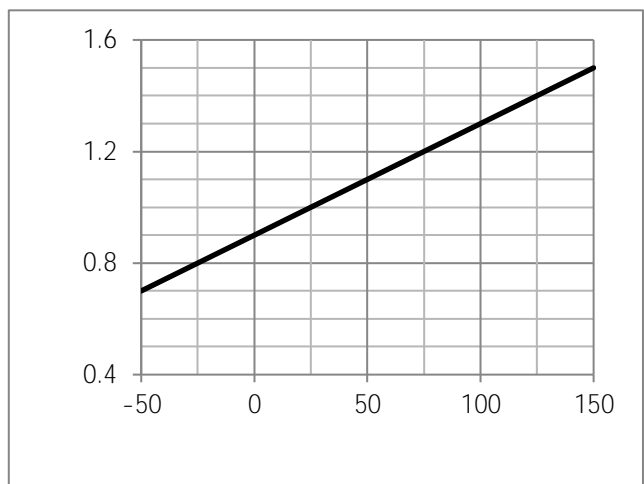
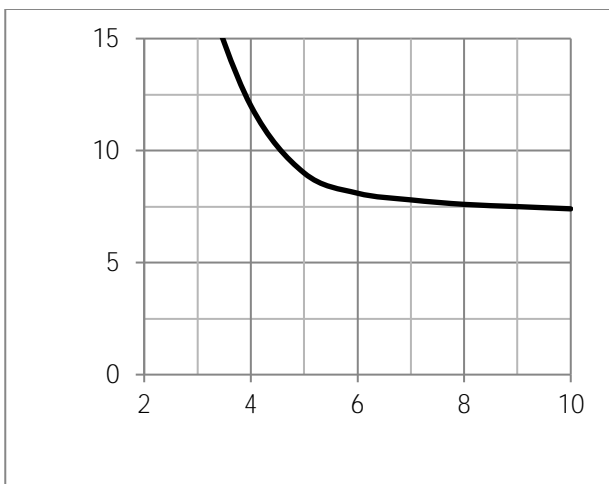
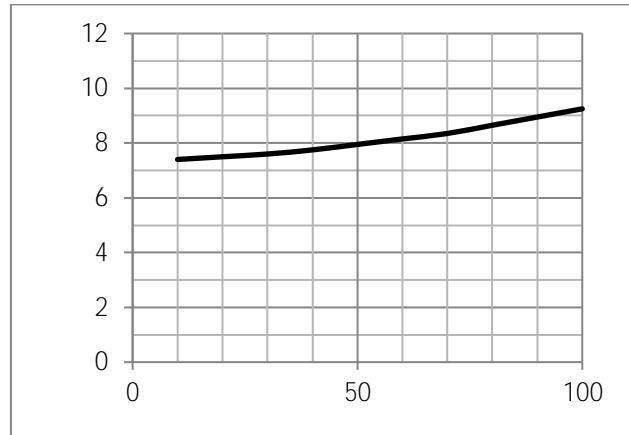


Fig.4 Resistance V.S Drain Current







sions(DFN3x3)

Unit mm

