



Product Summary

The ZMD68301N combines advanced trench MOSFET technology with a low resistance package to provide extremely low $R_{DS(ON)}$.

$V_{DS1} = 30V$
 $V_{DS2} = 30V$
 $R_{DS(ON)1} = 6.2m\Omega$
 $R_{DS(ON)2} = 4.5m\Omega$
 $I_{D1} = 50A$
 $I_{D2} = 60A$

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

Dual DIE in one package

DC/DC Converters in Computing
 Isolated DC/DC Converters in Telecom and Industrial

Part NO.	ZMD68301N
Marking2()TJETQQ EMC 1143 494.83 211.94 120.98 0.137 063.9.261ZMD68301TJETn-US)BDC 634.63	

$T_c = 25$ Q1

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	30	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current	$I_{D@TC=25^\circ C}$	50	A
	$I_{D@TC=75^\circ C}$	38	A
	$I_{D@TC=100^\circ C}$	31.5	A
Pulsed Drain Current	I_{DM}	120	A
Total Power Dissipation(TC=25°C)	$P_D@TC=25^\circ C$	60	W
Total Power Dissipation(TA=25°C)	$P_D@TA=25^\circ C$	1.8	W
Operating Junction Temperature	T_J	-55 to 150	°C
Storage Temperature	T_{STG}	-55 to 150	°C
Single Pulse Avalanche Energy@L=0.1mH	E_{AS}	45	mJ
Avalanche Current@L=0.1mH	I_{AS}	30	A



Thermal resistance(Q1)

Parameter	Symbol	Min.	Typ.	Max.	Unit
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(Q2)

Parameter	Symbol	Condition	Min.
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Channel characteristics curve(Q1)

Fig.1 Gate-Charge Characteristics

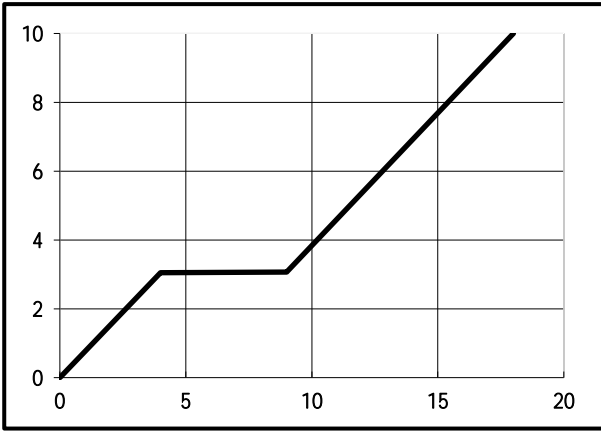


Fig.2 Capacitance Characteristics

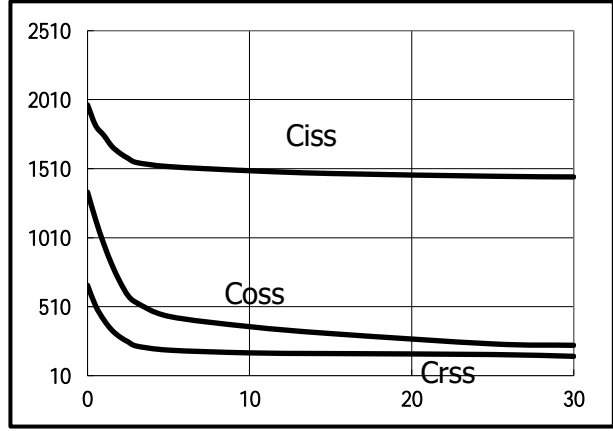


Fig.3 Power Dissipation

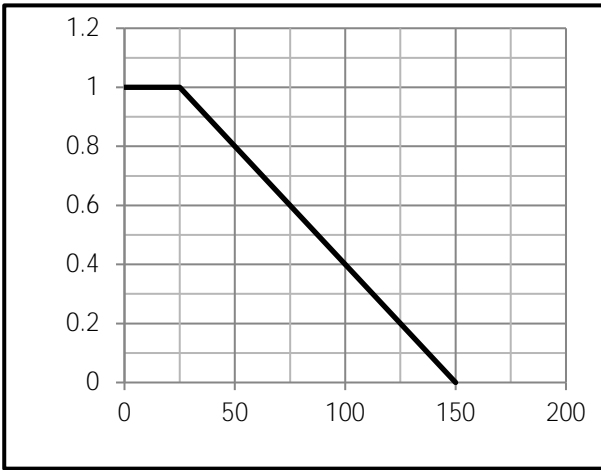


Fig.4 Typical output Characteristics

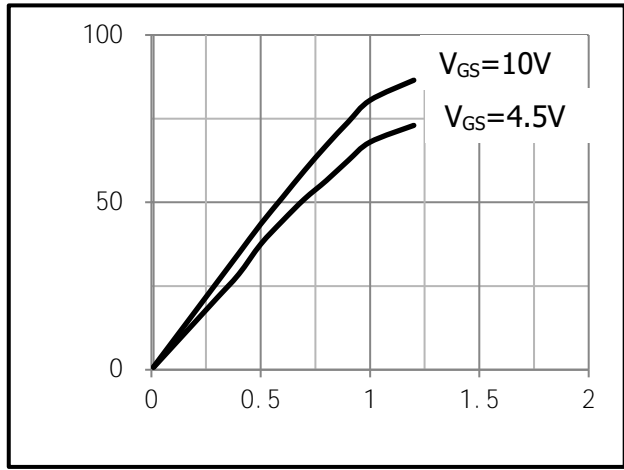


Fig.5 Threshold Voltage V.S Junction Temperature

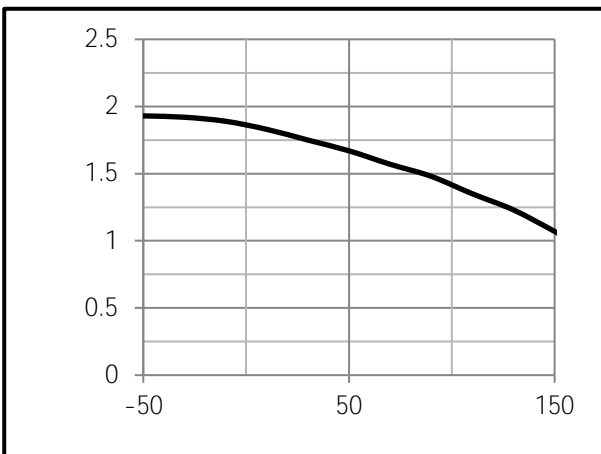
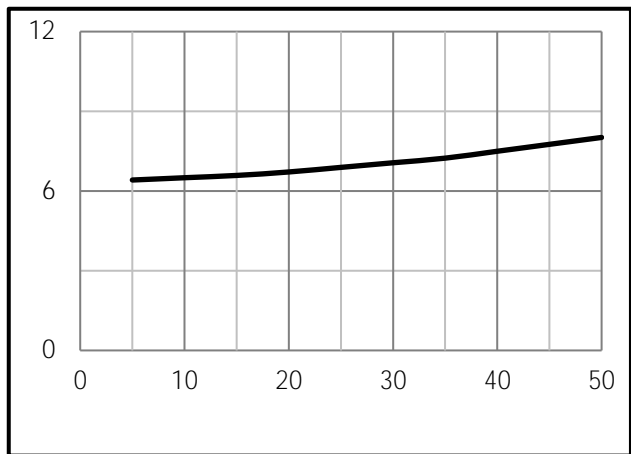


Fig.6 Resistance V.S Drain Current

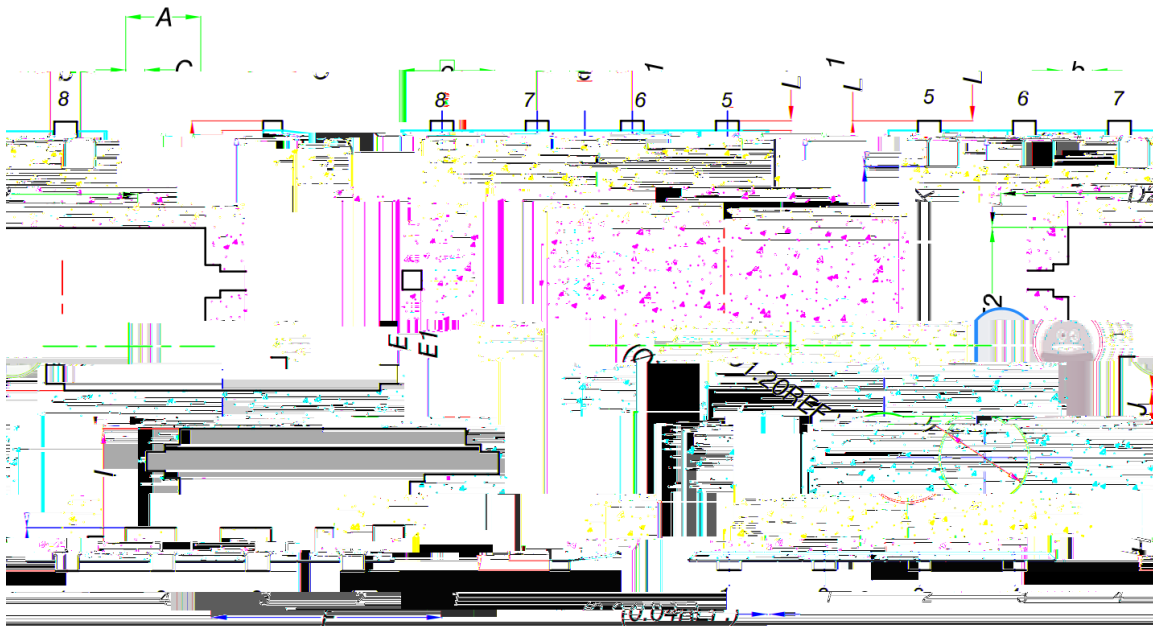






sions DFN5x6

Unit mm



BACKSIDE VIEW

