

**Key Features**

The ZMC88601S combines advanced trench MOSFET technology with a low resistance package to provide extremely low  $R_{DS(ON)}$ . It combine one N Channel MOSFET and one P channel MOSFET.

**Low  $R_{DS(ON)}$** 

Advanced trench MOSFET technology  
 to minimize conductive loss  
 Dual DIE in one package

**Product Summary**

$V_{DS1} = 60V$   
 $V_{DS2} = -60V$   
 $R_{DS(ON)}$

**Applications**

Power Management in Notebook Computer  
 BLDC Motor driver

**Ordering Information**
**N Channel Absolute Maximum Ratings  $T_C = 25$** 

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DS}$	60	V
Gate-Source Voltage	$V_{GS}$	$\pm 20$	V
Continuous Drain Current	$I_D$	4.5	A
Pulsed Drain Current	$I_{DM}$	13	A
Total Power Dissipation	$P_D@TC=25$	3.4	W
Total Power Dissipation	$P_D@TA=25$	0.69	W
Operating Junction Temperature	$T_J$	-55 to 150	
Storage Temperature	$T_{STG}$	-55 to 150	



**P Channel Absolute Maximum Ratings  $T_c = 25$**

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DS}$	-60	V
	$V_{GS}$	$\pm 20$	V
Continuous Drain Current( $T_C=25$ )	$I_D$	-4.0	A

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**N Channel characteristics curve**

Fig.1 Power Dissipation Derating Curve

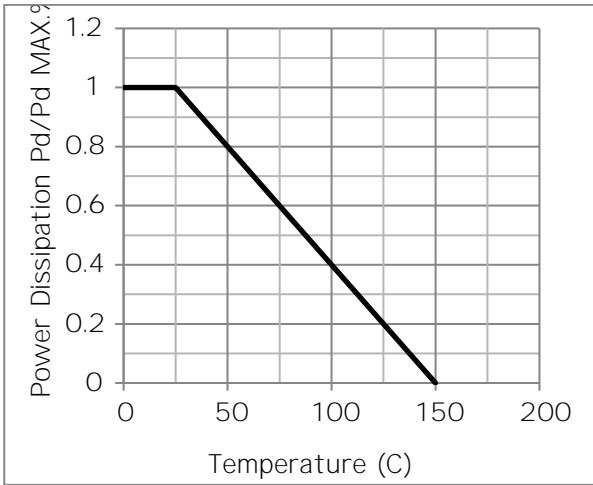


Fig.2 Typical output Characteristics

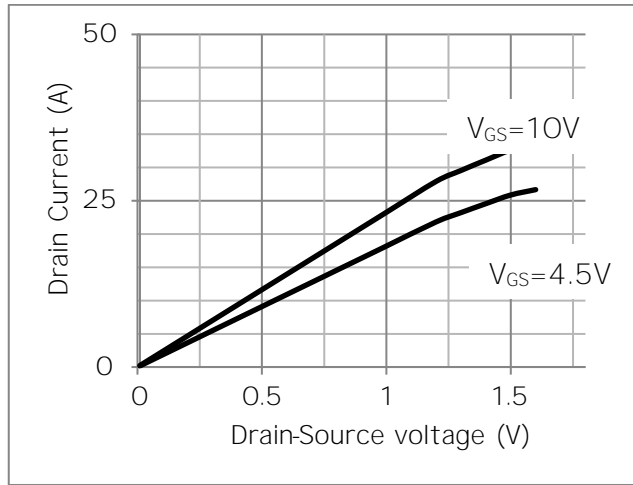


Fig.3 Threshold Voltage V.S Junction Temperature

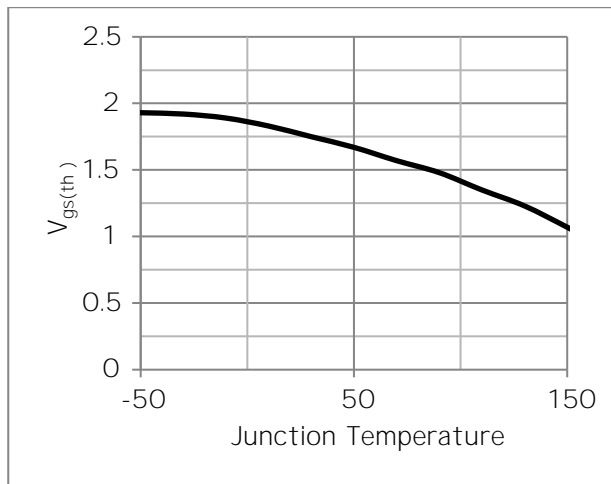


Fig.4 Resistance V.S Drain Current

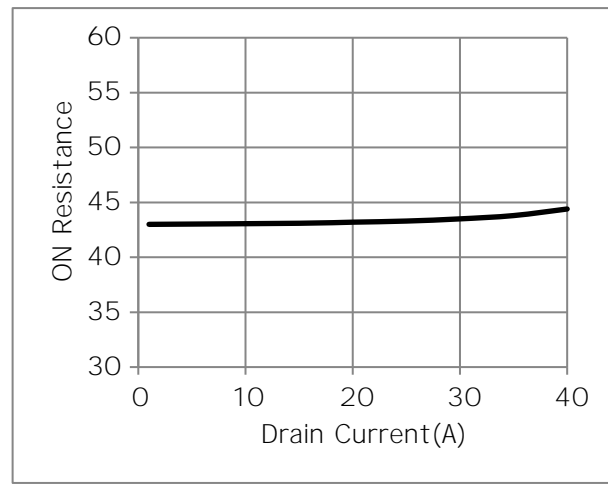


Fig.5 On-Resistance VGS Gate Source Voltage

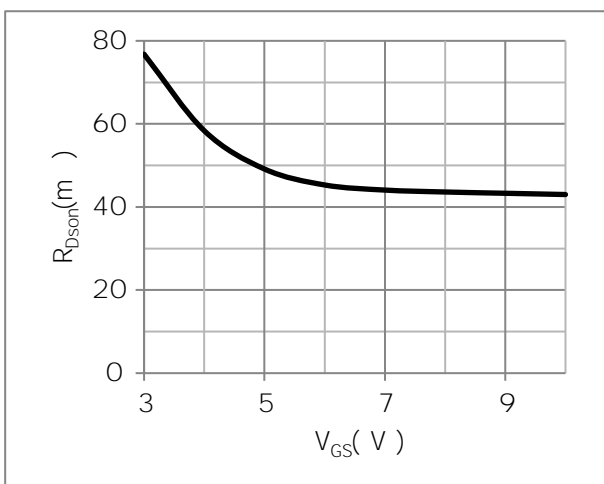
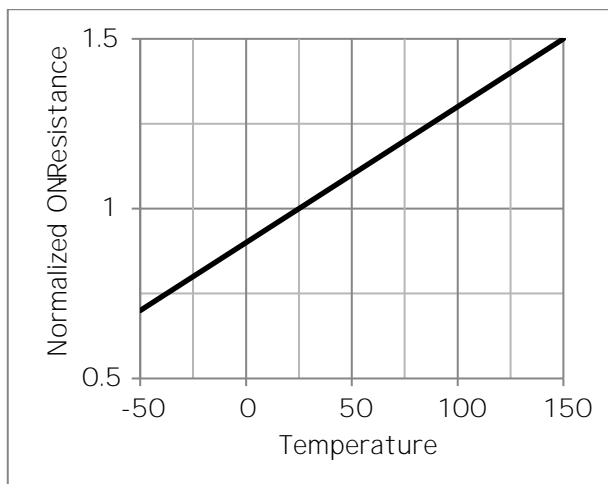


Fig.6 OnResistance V.S Junction Temperature



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Test Circuit

Fig.1 Switching Time Measurement Circuit

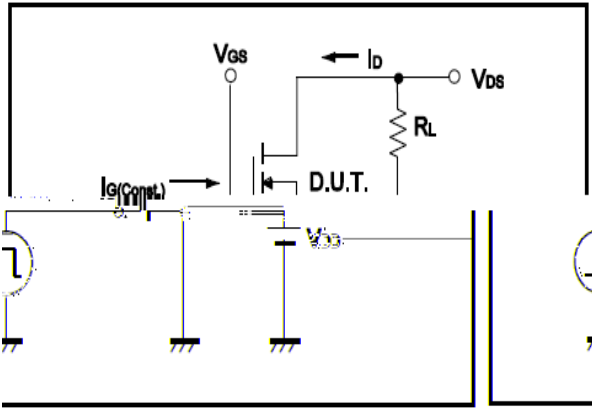


Fig.2 Gate Charge Waveform

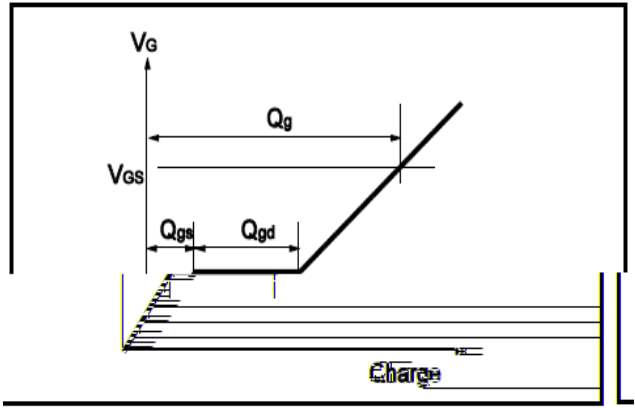


Fig.3 Switching Time Measurement Circuit

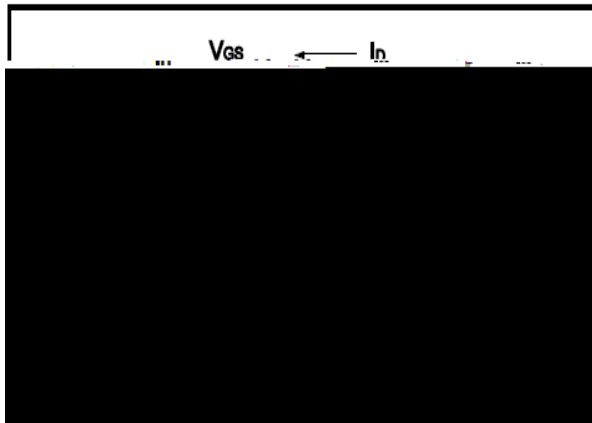


Fig.4 Gate Charge Waveform

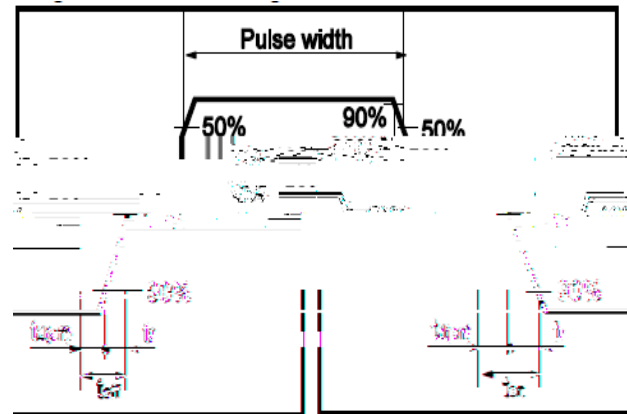


Fig.5 Avalanche Measurement Circuit

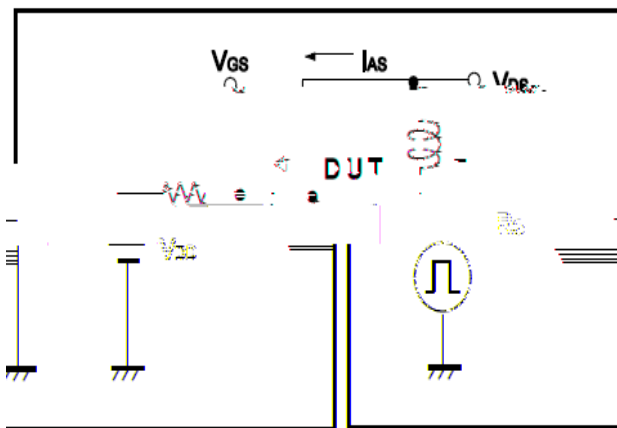
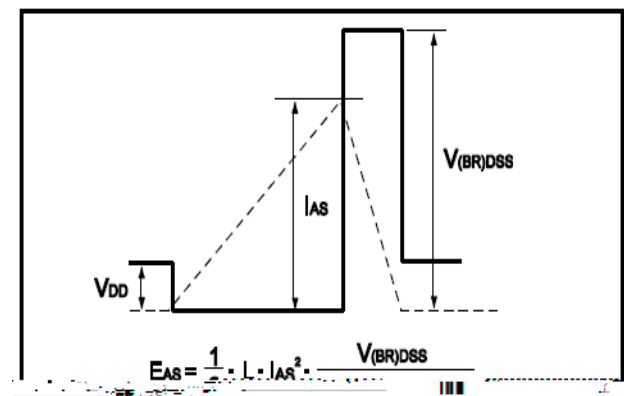


Fig.6 Avalanche Waveform





8 ] a Y b g (SOEP) g

Unit: mm

SYMBOL	min	TYP	max	SYMBOL	min		max
A	4.80		5.00	C	1.30		1.50