



The ZMC88404D combines advanced trench MOSFET combines

**N Channel 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( $T_C=25$ )	$I_D$	25	A
Pulsed Drain Current	$I_{DM}$	60	A
Total Power Dissipation( $T_C=25$ )	$P_D@T_C=25$	50	W
Total Power Dissipation( $T_A=25$ )	$P_D@T_A=25$	2.0	W
Operating Junction Temperature	$T_J$	-55 to 150	
Storage Temperature	$T_{STG}$	-55 to 150	
Single Pulse Avalanche Energy	$E_{AS}$	35	mJ



**Gate Charge characteristics( $T_a = 25$  )**

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Total gate charge	Qg	$V_{DD} = 25V$	-	10	-	
Gate - Source charge	Qgs	$I_D = 6A$ $V_{GS} = 10V$	-	4		nC



**N Channel characteristics curve**

Fig.1 Power Dissipation Derating Curve

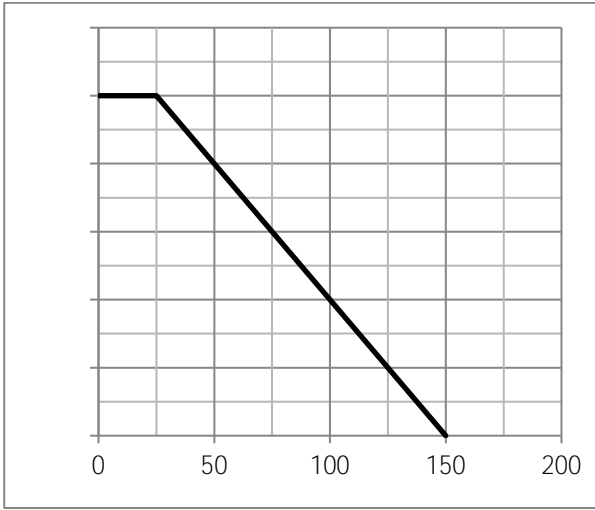


Fig.2 Typical output Characteristics

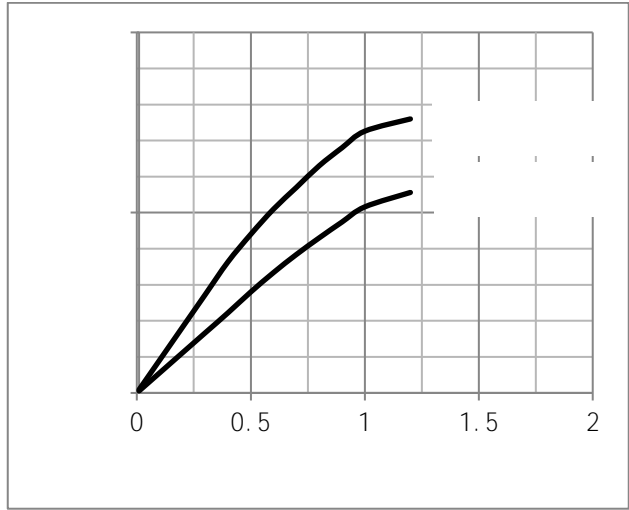


Fig.3 Threshold Voltage V.S Junction Temperature

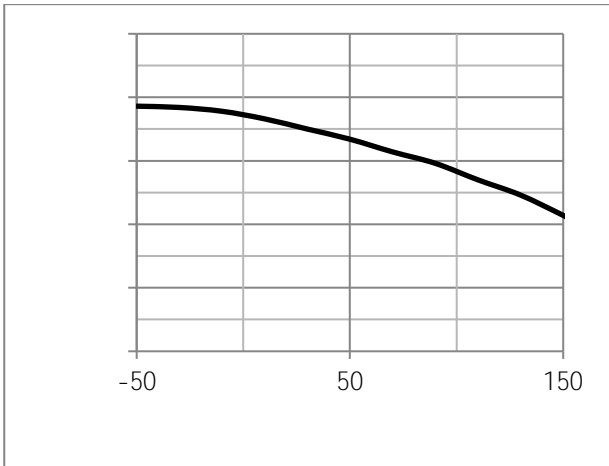
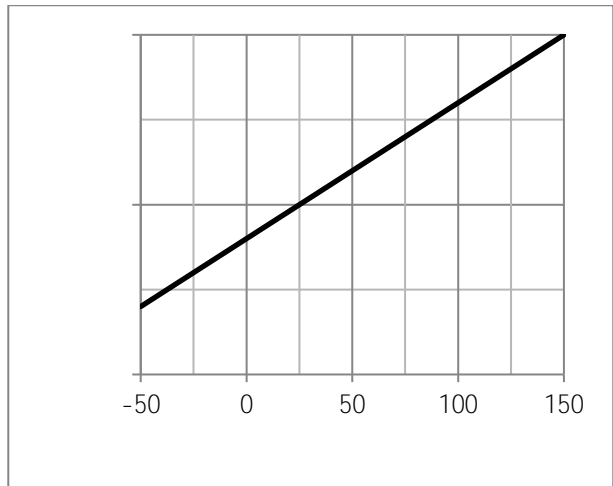
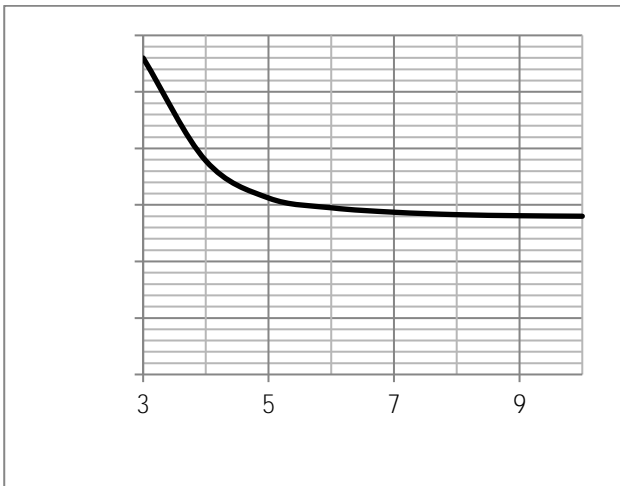
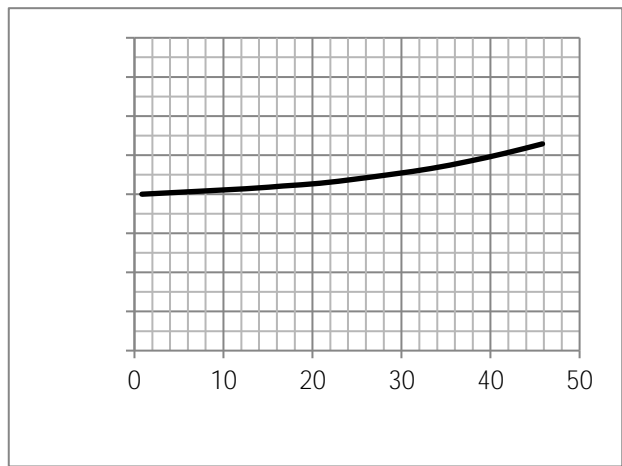


Fig.4 Resistance V.S Drain Current







Test Circuit

Fig.1 Switching Time Measurement Circuit

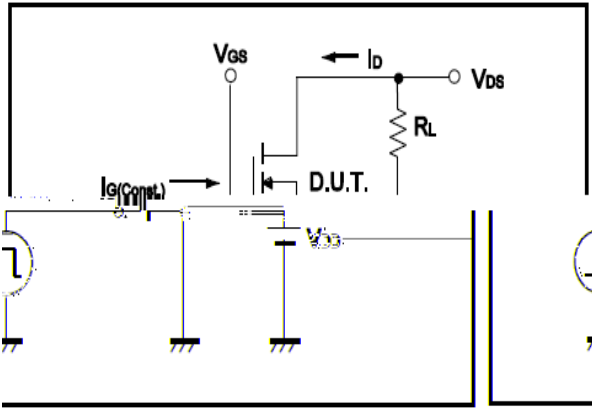


Fig.2 Gate Charge Waveform

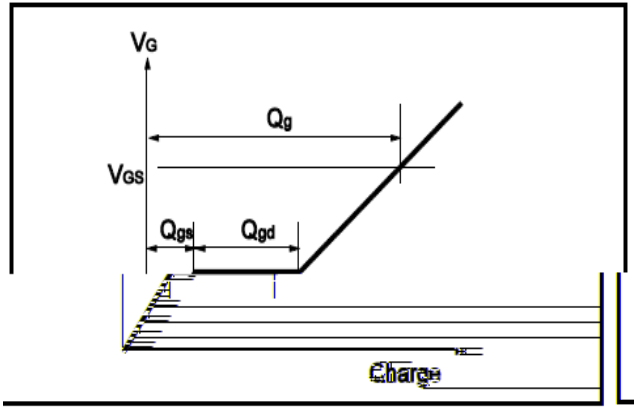


Fig.3 Switching Time Measurement Circuit

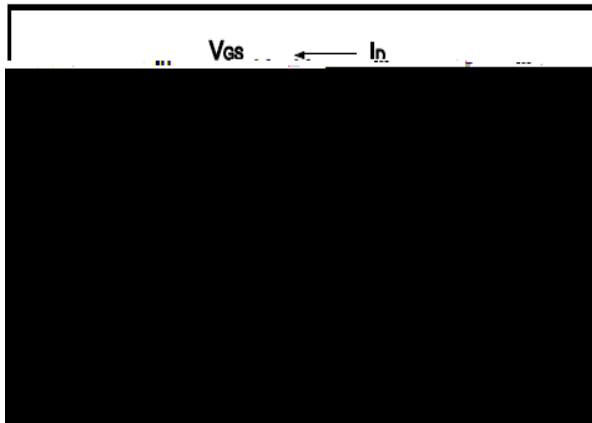


Fig.4 Gate Charge Waveform

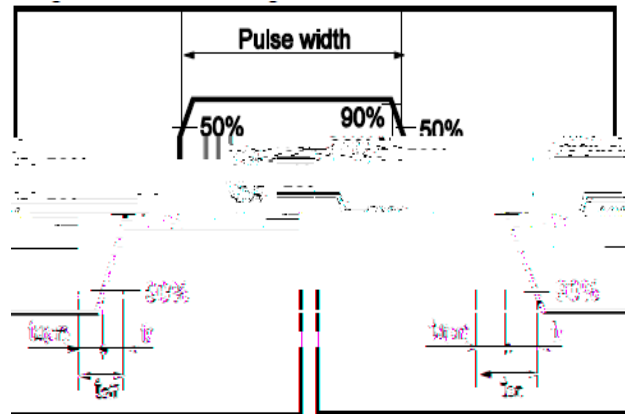


Fig.5 Avalanche Measurement Circuit

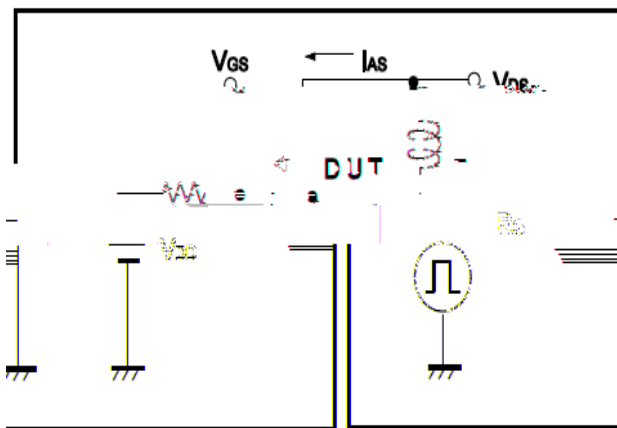
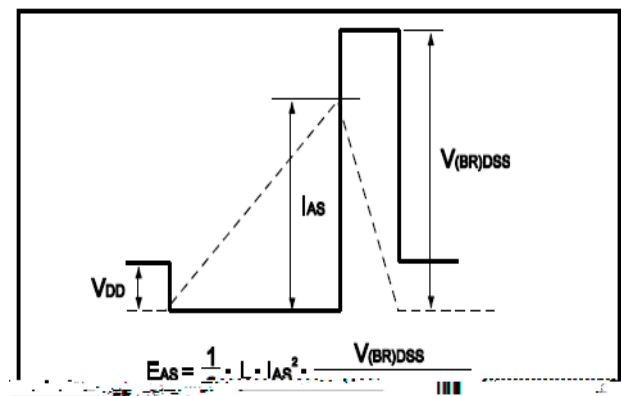


Fig.6 Avalanche Waveform





(TO-252-4)

Unit: mm

