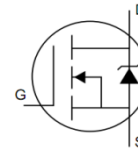
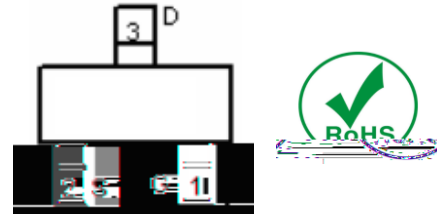


**Product Summary**

The ZM500N06T combines advanced trench MOSFET technology with a low resistance package to provide extremely low  $R_{DS(ON)}$ . This device is ideal for load switch and battery protection applications.



Advance high cell density Trench technology  
 $R_{DS(ON)}$  to minimize conductive loss



nd Synchronous Rectifier

Part NO.	ZM500N06T
Marking	500N06
Packing Information	REEL TAPE
Basic ordering unit (pcs)	3000

$T_C = 25$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DS}$	60	V
Gate-Source Voltage	$V_{GS}$	$\pm 20$	V
Continuous Drain Current	$I_{D@TC=25^\circ C}$	4.0	A
	$I_{D@TC=75^\circ C}$	3.0	A
	$I_{D@TC=100^\circ C}$	2.5	A
Pulsed Drain Current ①	$I_{DM}$	12	A
Total Power Dissipation	$P_D@T_C=25^\circ C$	1.4	W
Total Power Dissipation	$P_D@T_A=25^\circ C$	0.7	W
Operating Junction Temperature	$T_J$	-55 to 150	$^\circ C$
Storage Temperature	$T_{STG}$	-55 to 150	$^\circ C$



**Thermal resistance**

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	$R_{thJC}$	-	-	80	° C/W

Fig.1 Power Dissipation Derating Curve

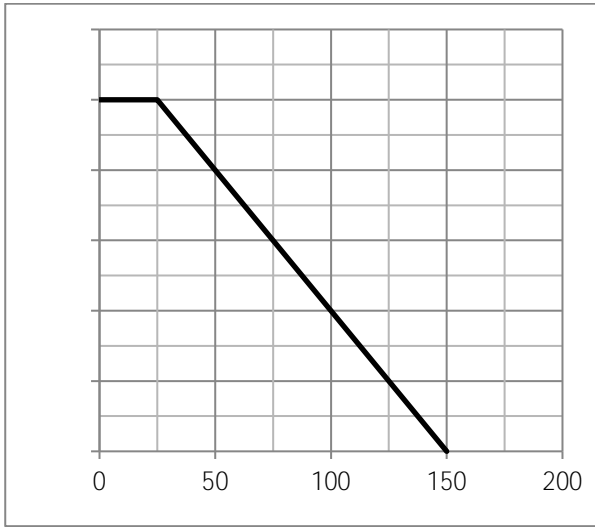


Fig.2 Typical output Characteristics

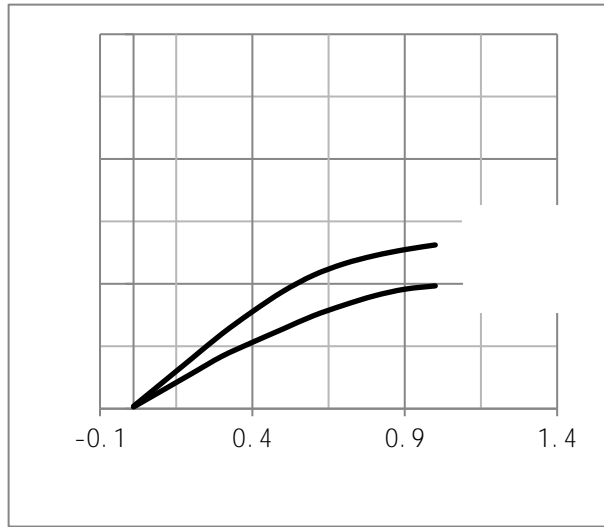


Fig.3 Threshold Voltage V.S Junction Temperature

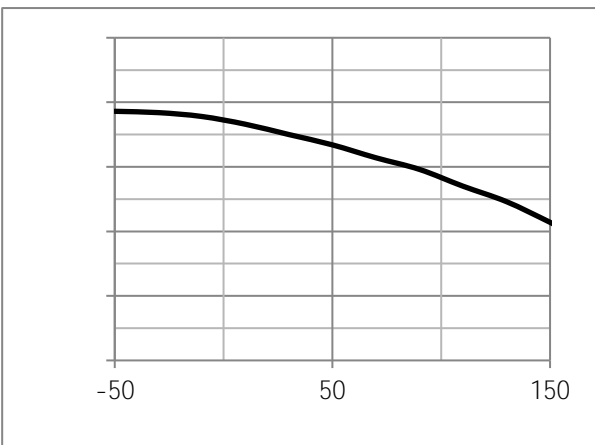


Fig.4 Resistance V.S Drain Current

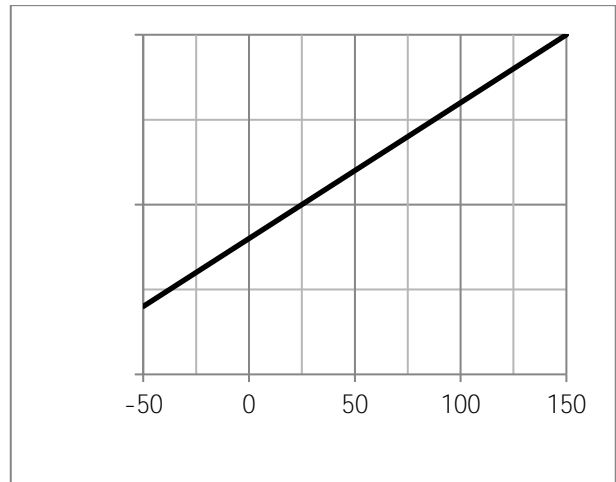
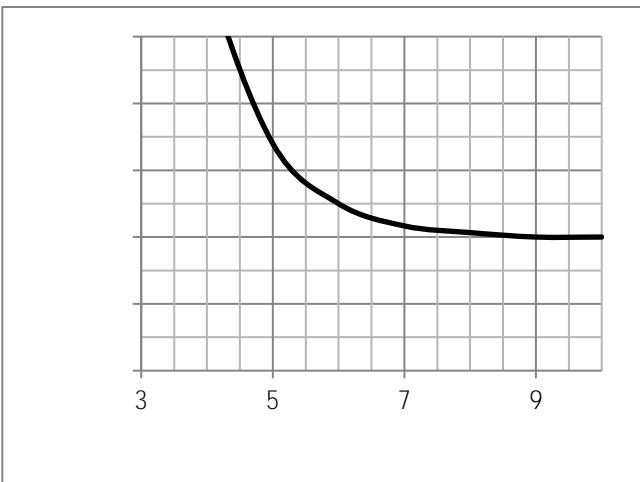
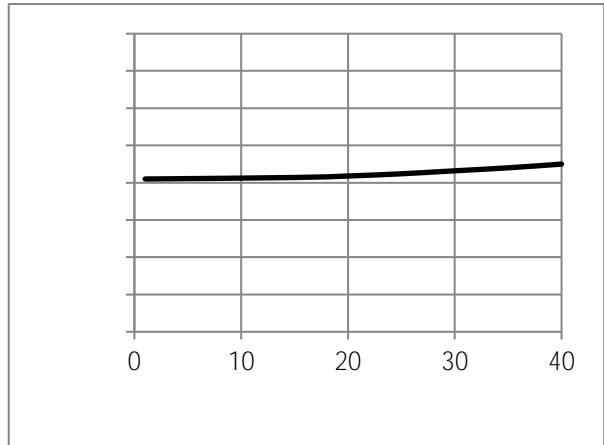


Fig.7 Switching Time Measurement Circuit

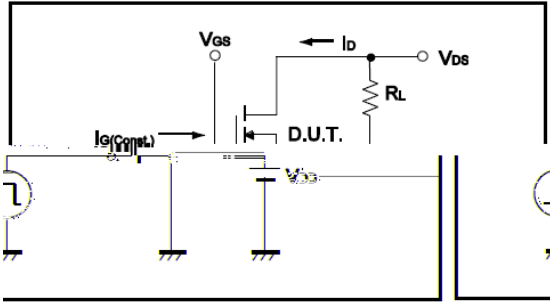


Fig.8 Gate Charge Waveform

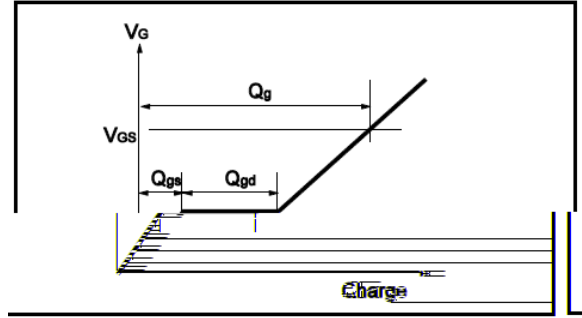


Fig.9 Switching Time Measurement Circuit

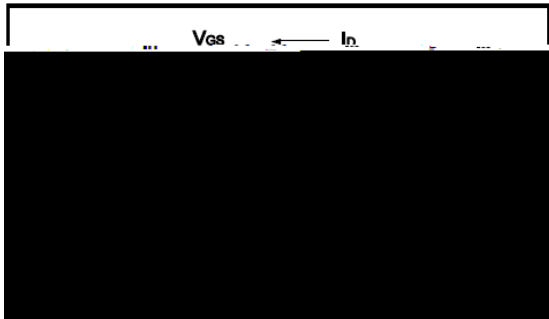


Fig.10 Gate Charge Waveform

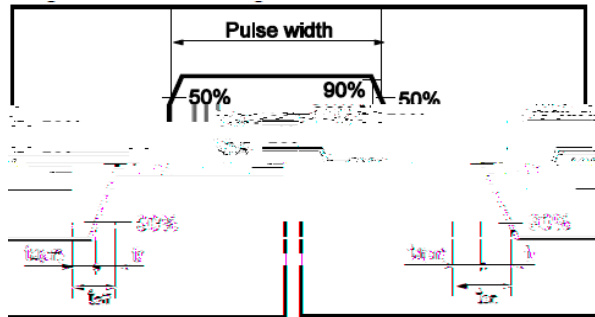


Fig.11 Avalanche Measurement Circuit

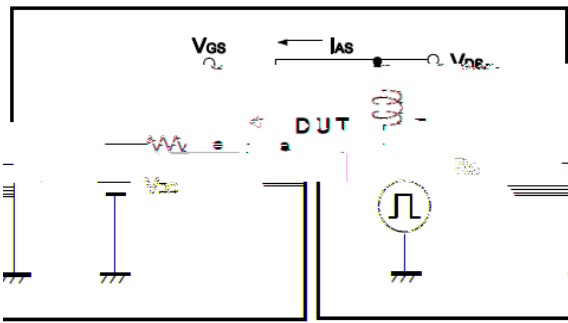


Fig.12 Avalanche Waveform

