The ZMS030N06F combines advanced trench MOSFET technology with a low resistance package to provide extremely low $R_{DS(ON)}$.

device constructure

$_{DS(ON)}$ to minimize conduction loss

T_C =25

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	60	V
Gate-Source Voltage	V_{GS}	±20	V
Continuous Drain Current	$I_{D@}$TC=25	85	A
	$I_{D@}$TC=75	65	A
	$I_{D\ @}$TC=100	54	A
Pulsed Drain Current	I_{DM}	200	A
Total Power Dissipation(TC=25)	P_D@TC=25	85	W
Total Power Dissipation(TA=25)	P_D@TA=25	3	W
Operating Junction Temperature	T_J	-55 to 150	
Storage Temperature	T_{STG}	-55 to 150	
Single Pulse Avalanche Energy@L=0.1mH	E_{AS}	245	mJ
Avalanche Current@L=0.1mH	I_{AS}	70	A

Fig.1 Gate-Charge Characteristics

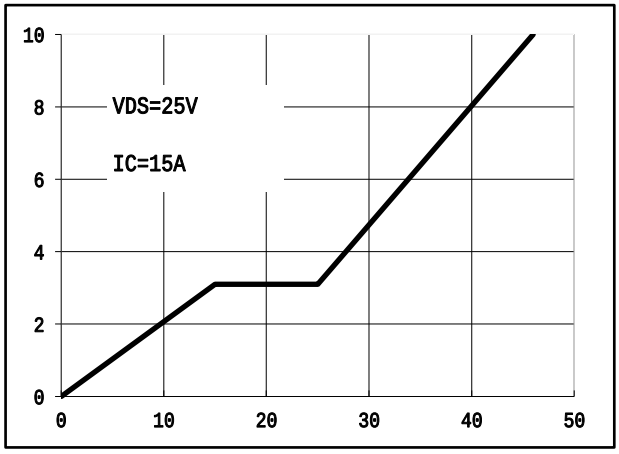


Fig.2 Capacitance Characteristics

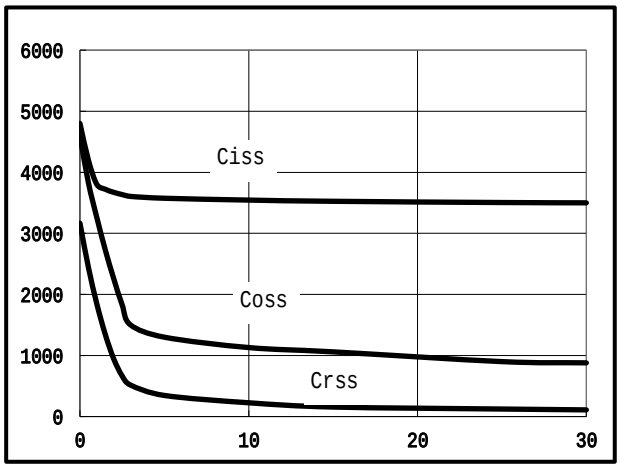


Fig.3 Power Dissipation

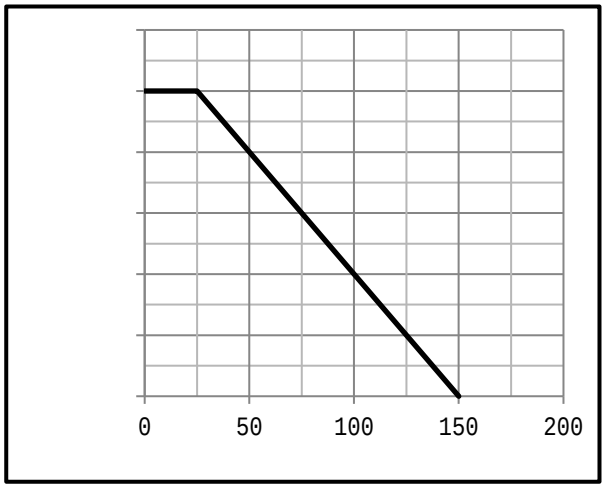


Fig.4 Typical output Characteristics

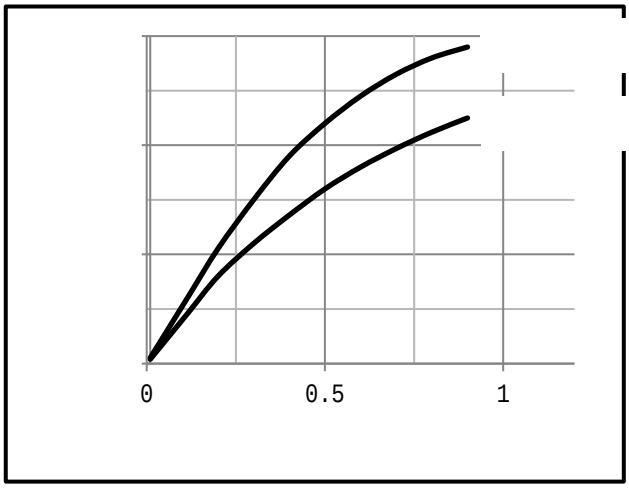


Fig.5 Threshold Voltage V.S Junction Temperature

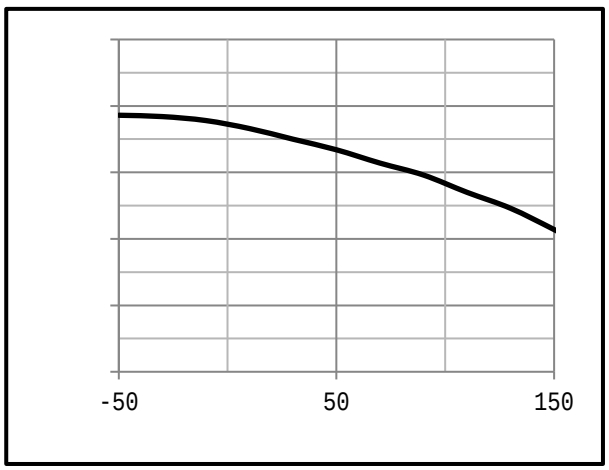
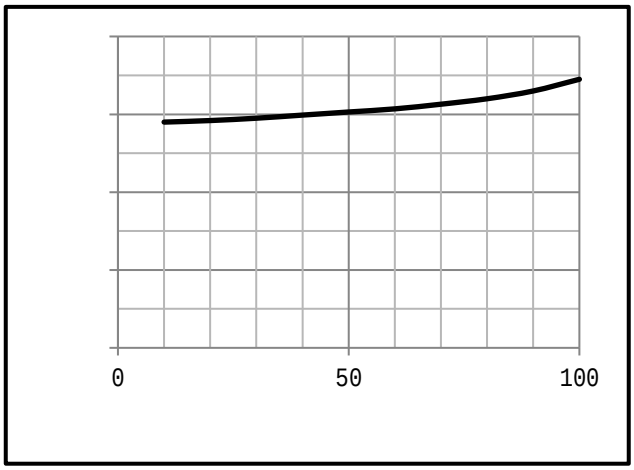
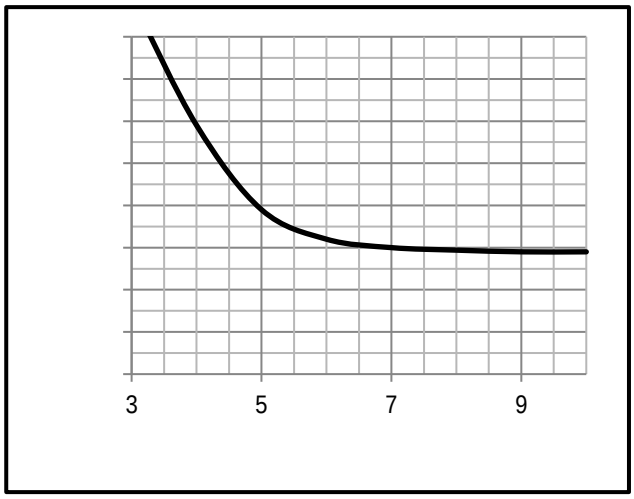


Fig.6 Resistance V.S Drain Current



4



4

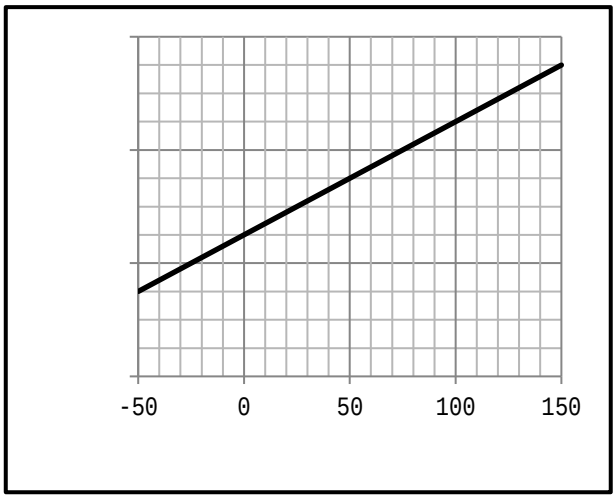


Fig.9 Switching Time Measurement Circuit

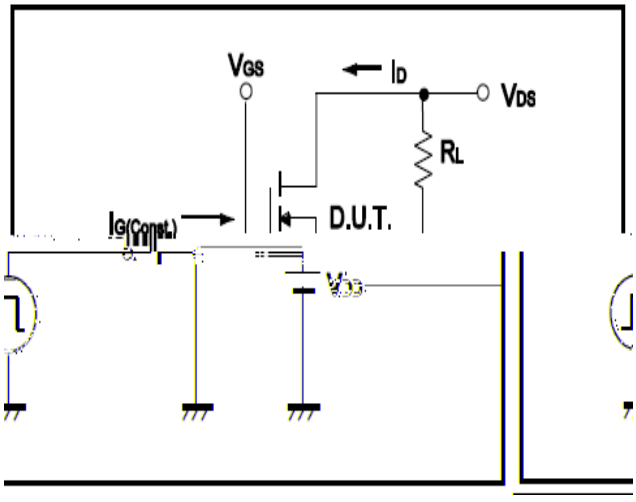


Fig.10 Gate Charge Waveform

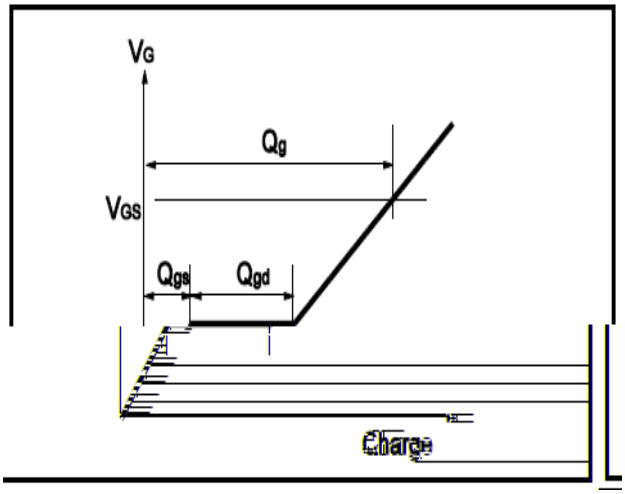


Fig.11 Switching Time Measurement Circuit

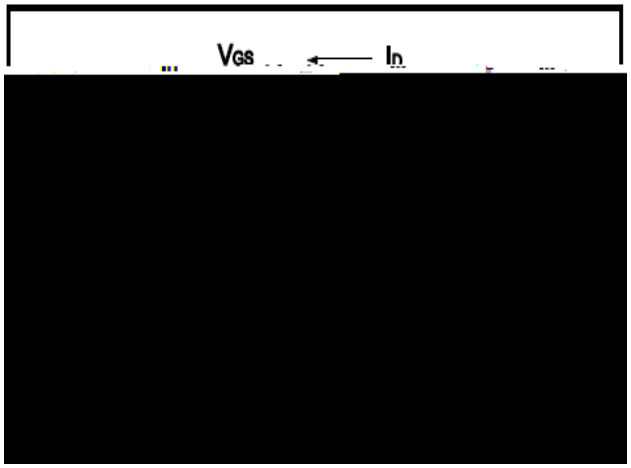
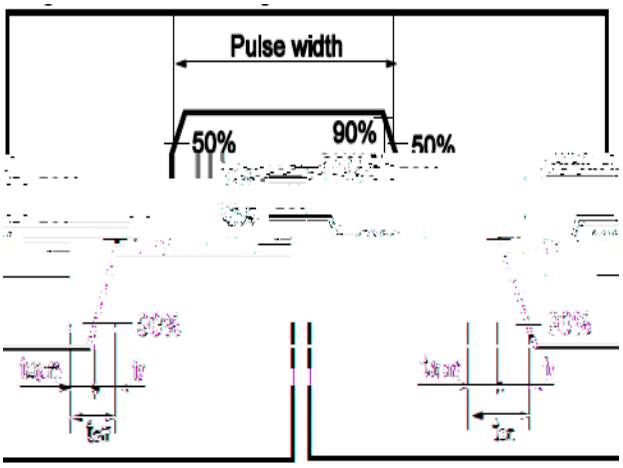


Fig.12 Gate Charge Waveform



Dimensions (TO-220F)

Unit mm