

**H**

The ZMS030N06D combines advanced trench MOSFET technology with a low resistance package to provide extremely low  $R_{DS(ON)}$ .

device constructure  
 $R_{DS(ON)}$  to minimize conduction loss


**E**

Synchronous Rectification for AC-DC/DC-DC converter

Oring switches  
 Power Tools

**M**

	REEL TAPE
	2500

**E**
 $T_C = 25$ 

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DS}$	60	V
Gate-Source Voltage	$V_{GS}$	$\pm 20$	V
Continuous Drain Current	$I_{D@TC=25}$	90	A
	$I_{D@TC=75}$	68	A
	$I_{D@TC=100}$	57	A
Pulsed Drain Current	$I_{DM}$	270	A
Total Power Dissipation	$P_D@TC=25$	60	W
Total Power Dissipation	$P_D@TA=25$	2.0	W
Operating Junction Temperature	$T_J$	-55 to 150	
Storage Temperature	$T_{STG}$	-55 to 150	
Single Pulse Avalanche Energy @ $L=0.1mH$	$E_{AS}$	180	mJ



Fig.1 Gate-Charge Characteristics

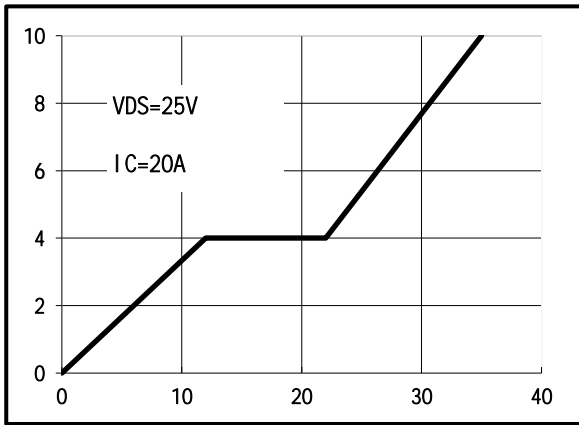


Fig.2 Capacitance Characteristics

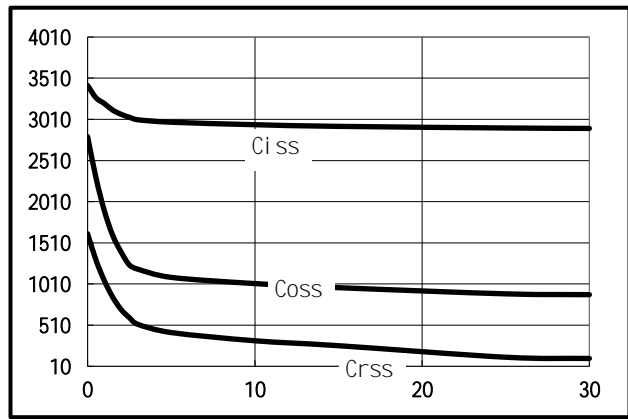


Fig.3 Power Dissipation

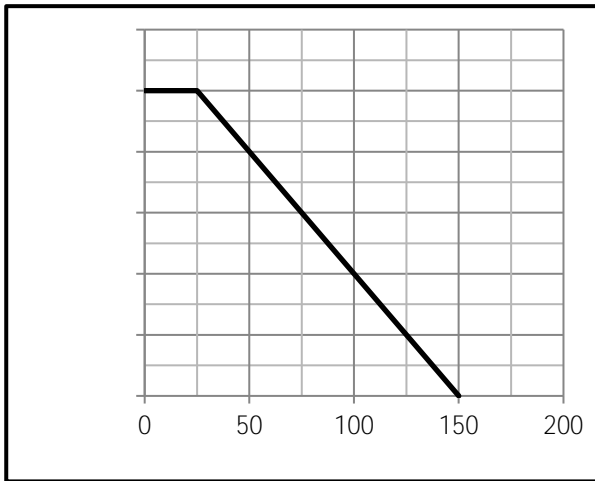


Fig.4 Typical output Characteristics

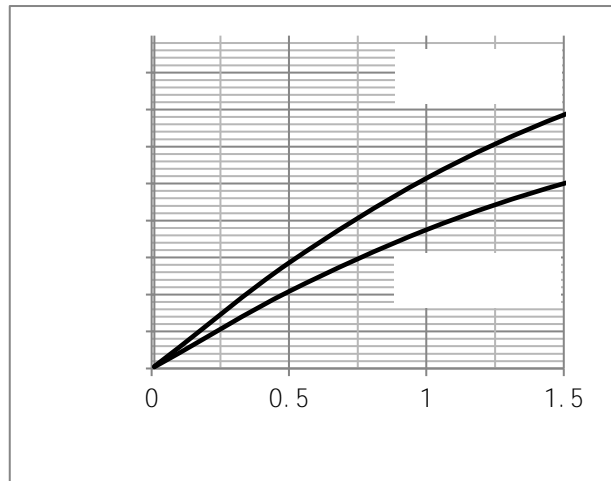


Fig.5 Threshold Voltage V.S Junction Temperature

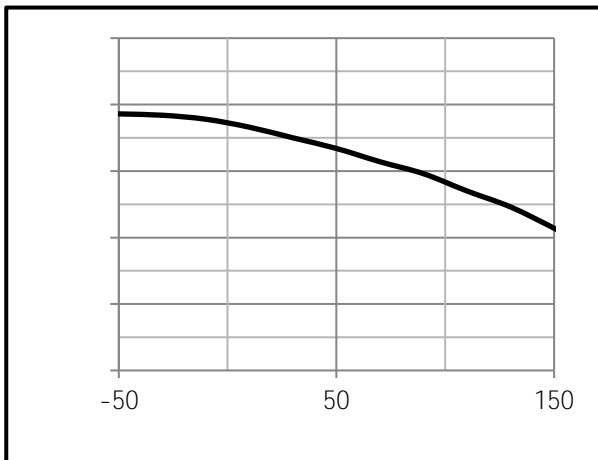
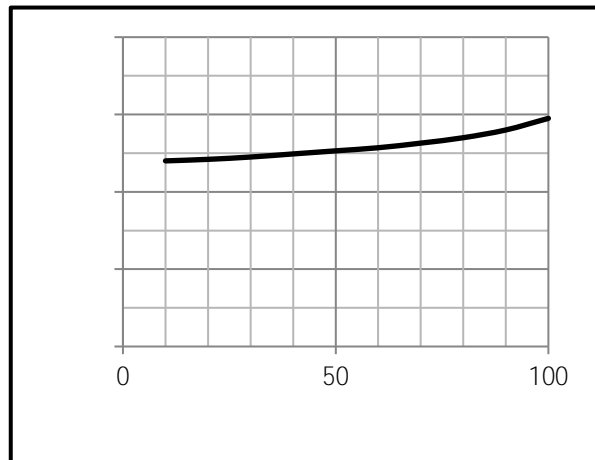


Fig.6 Resistance V.S Drain Current



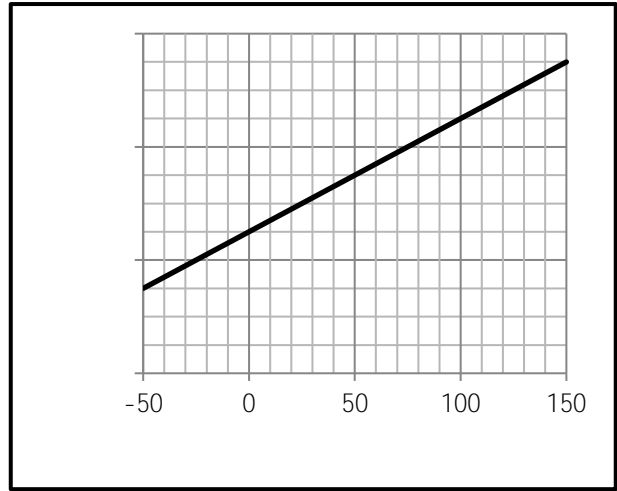
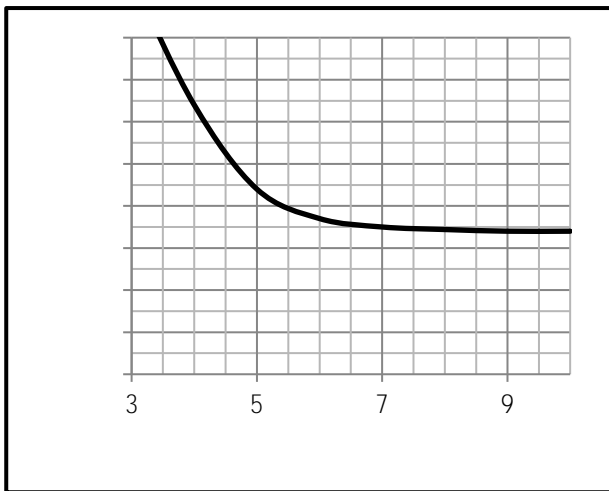


Fig.9 Switching Time Measurement Circuit

Fig.10 Gate Charge Waveform

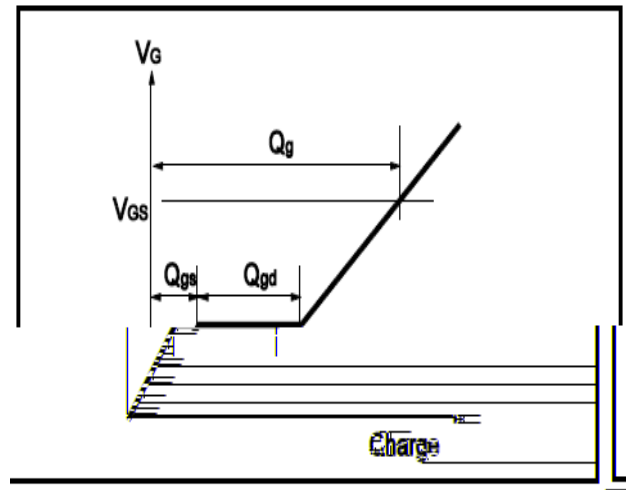
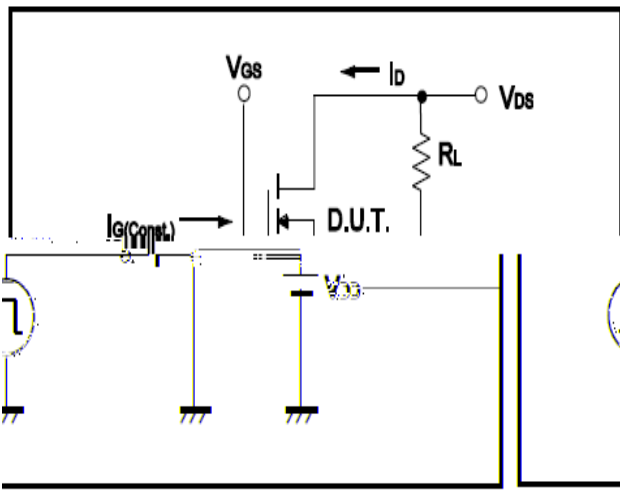
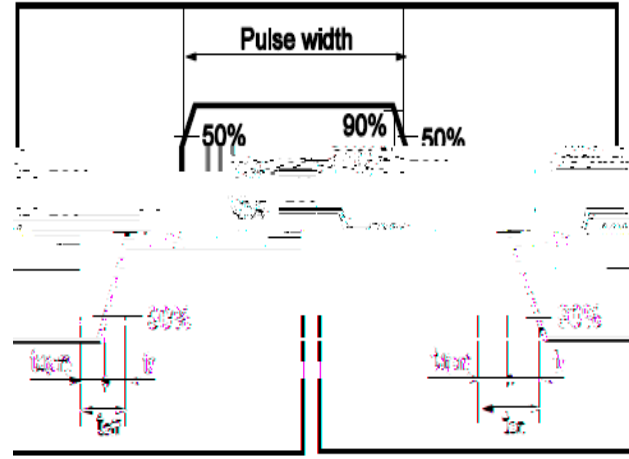
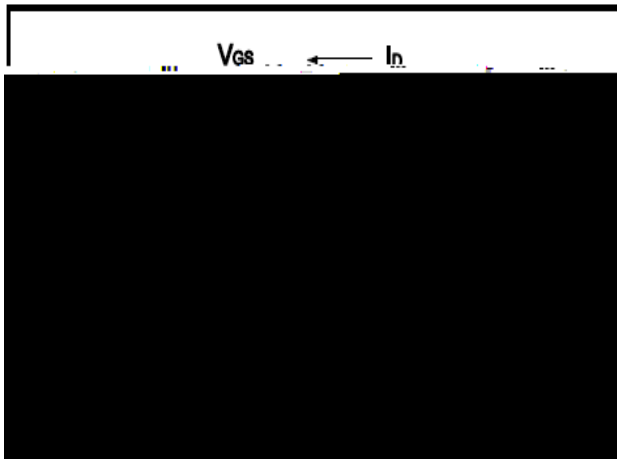


Fig.11 Switching Time Measurement Circuit

Fig.12 Gate Charge Waveform





Dimensions (TO-252)

Unit mm

SYMBOL	min	max	SYMBOL	min	max
A	2.10	2.50	B	0.85	1.25
b	0.50	0.80	b1	0.50	0.90
b2	0.45	0.70	C	0.45	0.70
D	6.30	6.75	D1	5.10	5.50
E	5.30	6.30	e1	2.25	2.35
L1	9.20	10.60	e2	4.45	4.75
L2	0.90	1.75	L3	0.60	1.10
K	0.00	0.23			

