The ZM600N15HP combines advanced trench MOSFET technology with a low resistance package to provide extremely low $R_{DS(ON)}$.

Trench technology

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

T_C =25

Parameter	**Symbol**	Rating	Unit
Drain-Source Voltage	V_{DS}	150	V
Gate-Source Voltage	V_{GS}	±20	V
Continuous Drain Current	$I_{D@}$TC=25	28	A
	$I_{D@}$TC=75	21	A
	$I_{D\ @}$TC=100	17	A
Pulsed Drain Current	I_{DM}	60	A
Total Power Dissipation(TC=25)	P_D@TC=25	80	W
Total Power Dissipation(TA=25)	P_D@TA=25	5	W
Operating Junction Temperature	T_J	-55 to 150	
Storage Temperature	T_{STG}	-55 to 150	

Thermal resistance

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	R_{thJC}	-	-	1.5	° C/W
Thermal resistance, junction - ambient	R_{thJA}	-	-	25	° C/W
Soldering temperature, wavesoldering for 10s	T_{sold}	-	-	265	° C

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS} =0V,I_D =250uA	150			V
Gate Threshold Voltage	$V_{GS(TH)}$	V_{GS} =V_{DS}, I_D =250uA	2.0		4.0	V
Drain-Source Leakage Current	I_{DSS}	V_{DS}=150V, V_{GS} =0V			1.0	uA
Gate- Source Leakage Current	I_{GSS}	V_{GS}=±20V ,V_{DS} =0V			100	nA
Static Drain-source On Resistance		V_{GS}=10V, I_D=20A				
Forward Transconductance	g_{FS}	V_{DS} =10V, I_D=20A				
Source-drain voltage	V_{SD}					

Fig.7 Switching Time Measurement Circuit

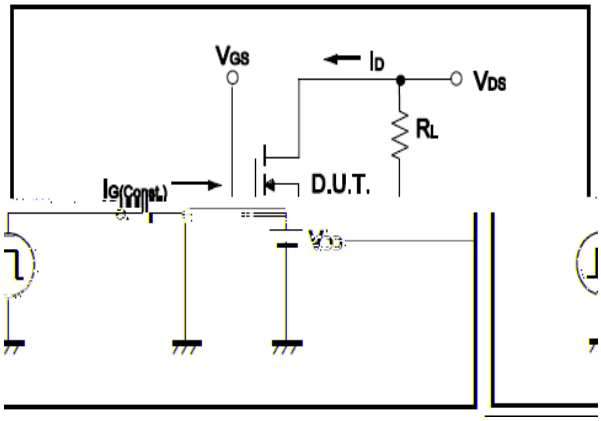

Fig.8 Gate Charge Waveform

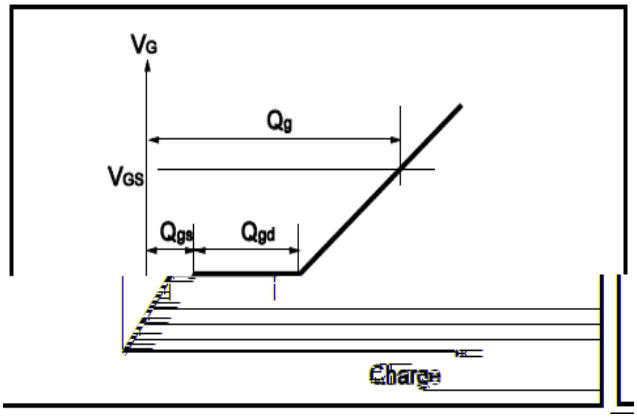

Fig.9 Switching Time Measurement Circuit

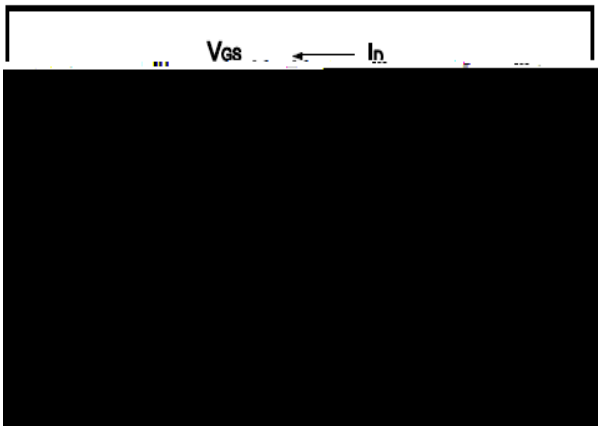

Fig.10 Gate Charge Waveform

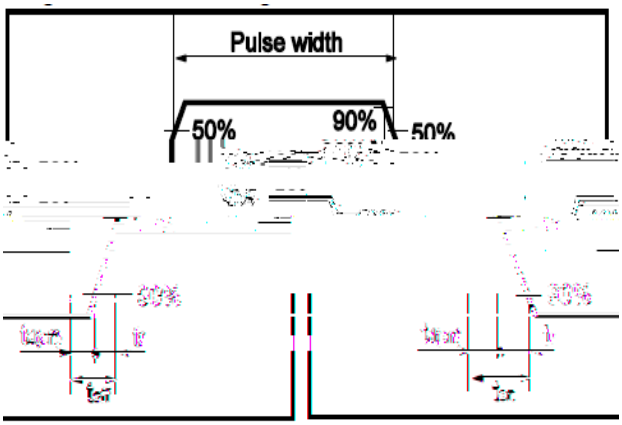

Fig.11 Avalanche Measurement Circuit

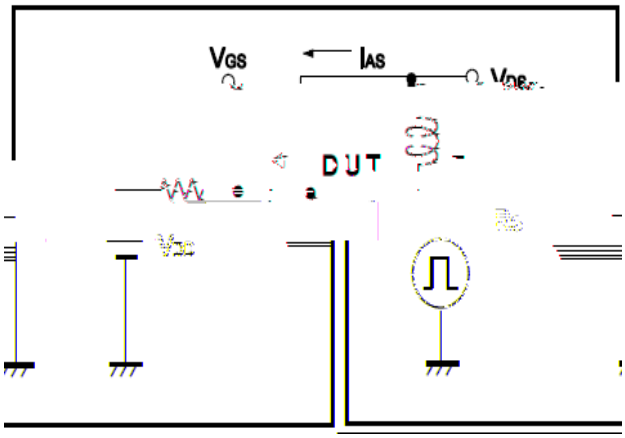

Fig.12 Avalanche Waveform