



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

Trench technology
 $R_{DS(ON)}$ 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	$^{\circ}C/W$
Thermal resistance, junction - ambient	R_{thJA}	-	-	25	$^{\circ}C/W$
Soldering temperature, wavesoldering for 10s	T_{sold}	-	-	265	$^{\circ}C$

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS} = 0V, I_D = 250\mu A$	150			V
Gate Threshold Voltage	$V_{GS(TH)}$	$V_{GS} = V_{DS}, I_D = 250\mu A$	2.0		4.0	V
Drain-Source Leakage Current	I_{DSS}	$V_{DS} = 150V, V_{GS} = 0V$			1.0	μA
Gate- Source Leakage Current	I_{GSS}	$V_{GS} = \pm 20V, V_{DS} = 0V$			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

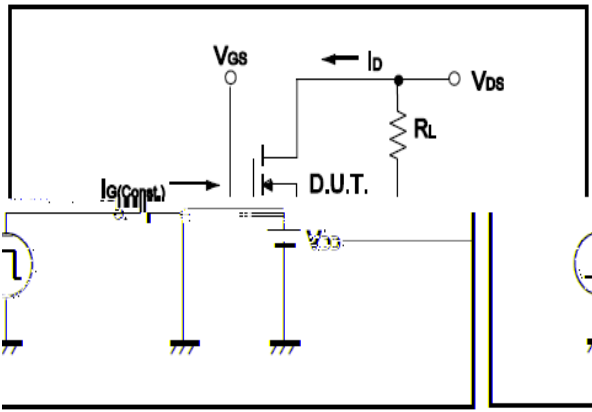


Fig.8 Gate Charge Waveform

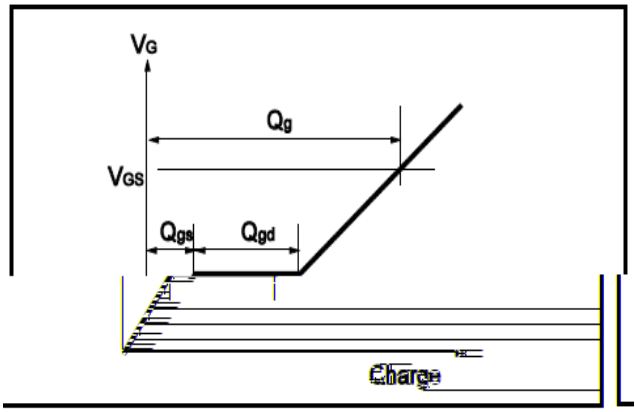


Fig.9 Switching Time Measurement Circuit

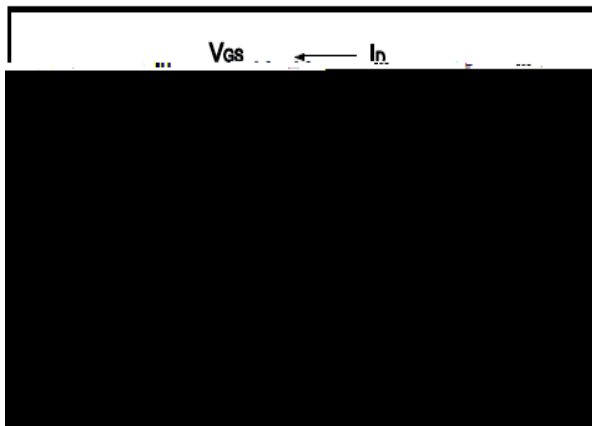


Fig.10 Gate Charge Waveform

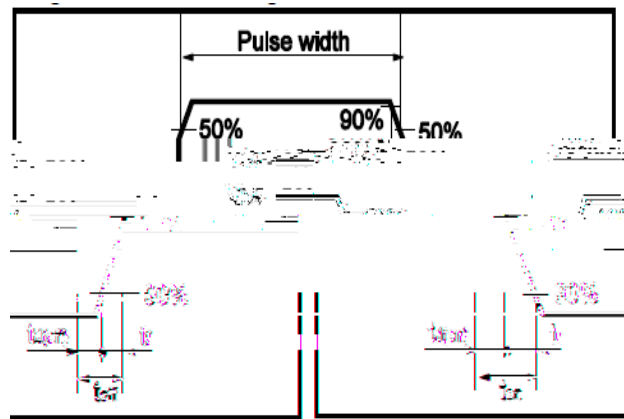


Fig.11 Avalanche Measurement Circuit

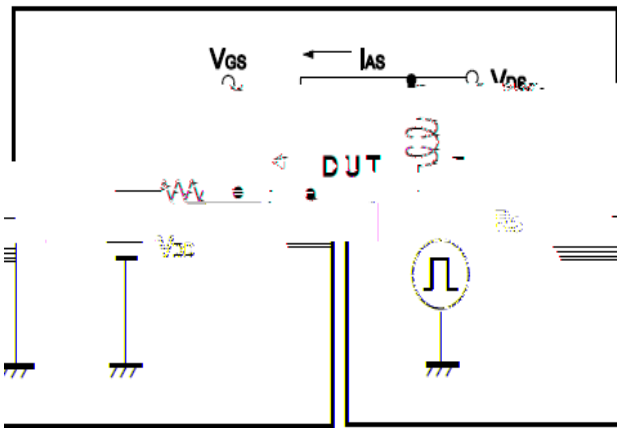


Fig.12 Avalanche Waveform

