



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	$V_{GS}$	$\pm 20$	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	$BV_{DSS}$	$V_{GS} = 0V, I_D = 250\mu A$	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	$\mu A$
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

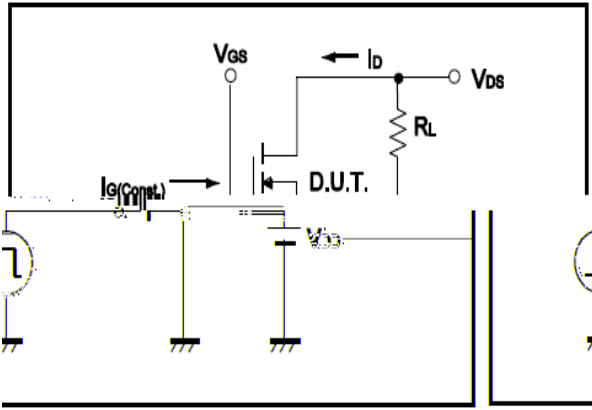


Fig.8 Gate Charge Waveform

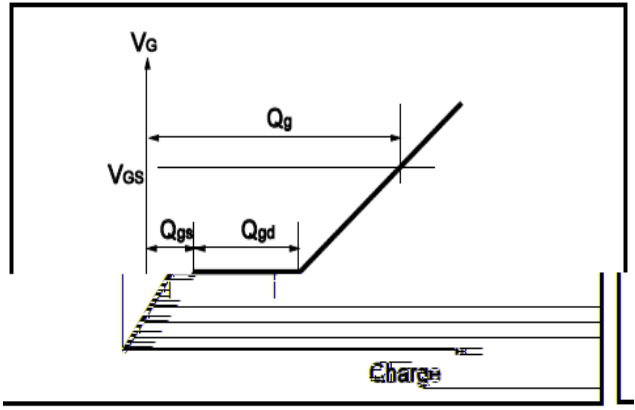


Fig.9 Switching Time Measurement Circuit

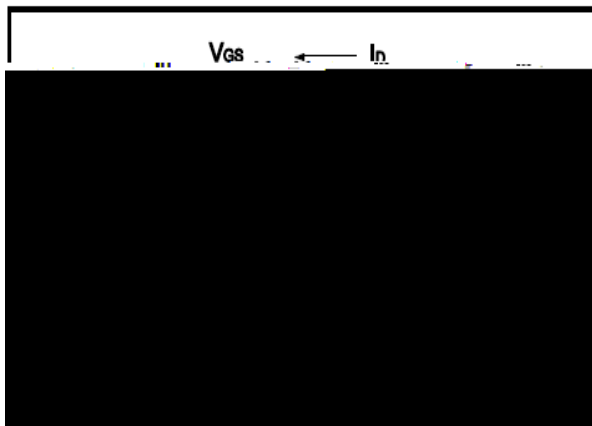


Fig.10 Gate Charge Waveform

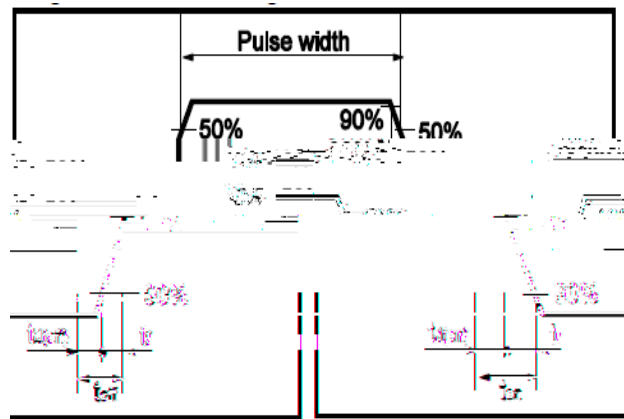


Fig.11 Avalanche Measurement Circuit

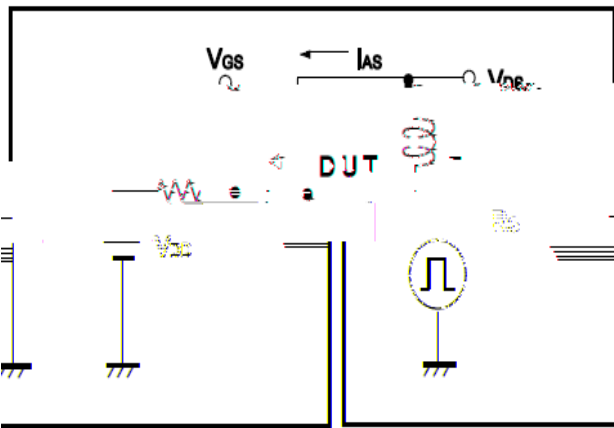


Fig.12 Avalanche Waveform

