● General Description

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

● Features

Trench technology

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

Dual DIE in one package

●Application

Power Management in Notebook Computer, Portable Equipment and Battery Powered Systems

●Ordering Information:

●Absolute Maximum Ratings (T_C =25℃)

Parameter	**Symbol**	Rating	Unit
Drain-Source Voltage	V_{DS}	40	V
Gate-Source Voltage	V_{GS}	±20	V
Continuous Drain Current	$I_{D@}$TC=25	12	A
	$I_{D@}$TC=75	9	A
	$I_{D@}$TC=100	7.5	A
Pulsed Drain Current	I_{DM}	36	A
Total Power Dissipation	P_D@TC=25	11	W
Total Power Dissipation	P_D@TA=25	2.1	W
Operating Junction Temperature	T_J	-55 to 150	
Storage Temperature	T_{STG}	-55 to 150	
Single Pulse Avalanche Energy	E_{AS}	65	mJ

●Thermal resistance

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	R_{thJC}	-	-	11	° C/W
Thermal resistance, junction - ambient	R_{thJA}	-	-	60	° C/W
Soldering temperature, wavesoldering for 10s	T_{sold}	-	-	265	° C

●Electronic Characteristics

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS} =0V, I_D =250uA	40			V
Gate Threshold Voltage	$V_{GS(TH)}$	V_{GS} =V_{DS}, I_D =250uA	1.2	1.8	2.5	V
Drain-Source Leakage Current	I_{DSS}	V_{DS}=40V, V_{GS} =0V			1.0	uA
Gate- Source Leakage Current	I_{GSS}	V_{GS}=±20V, V_{DS} =0V				

Fig.1 Power Dissipation

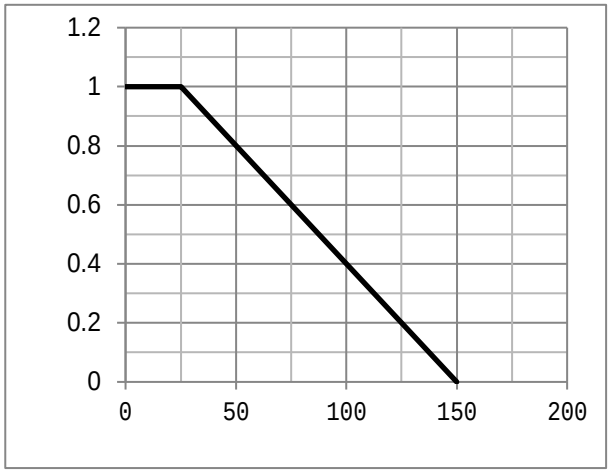

Fig.2 Typical output Characteristics

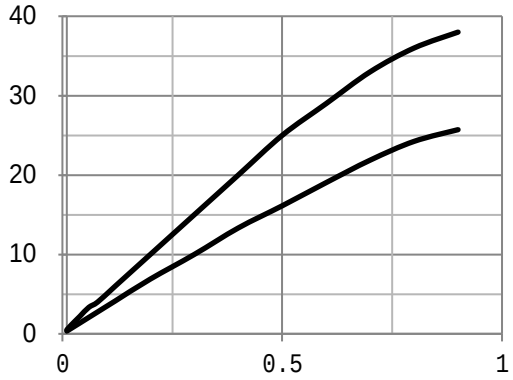

Fig.3 Threshold Voltage V.S Junction Temperature

Fig.4 Resistance V.S Drain Current

Fig.5 On-Resistance VS Gate Source Voltage

Fig.6 On-Resistance V.S Junction Temperature

Fig.7 Switching Time Measurement Circuit

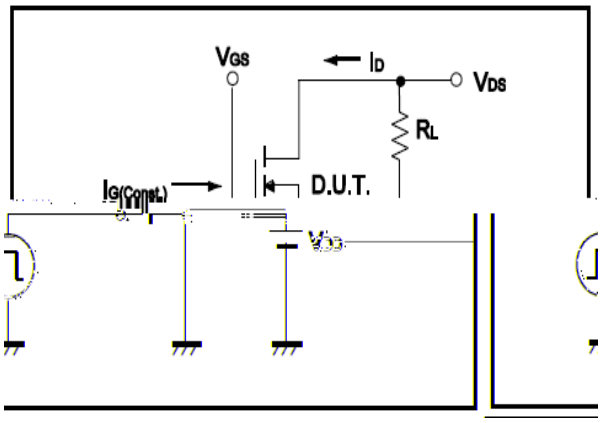

Fig.8 Gate Charge Waveform

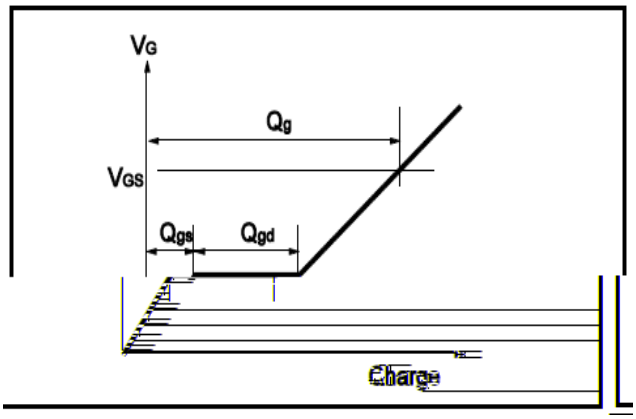

Fig.9 Switching Time Measurement Circuit

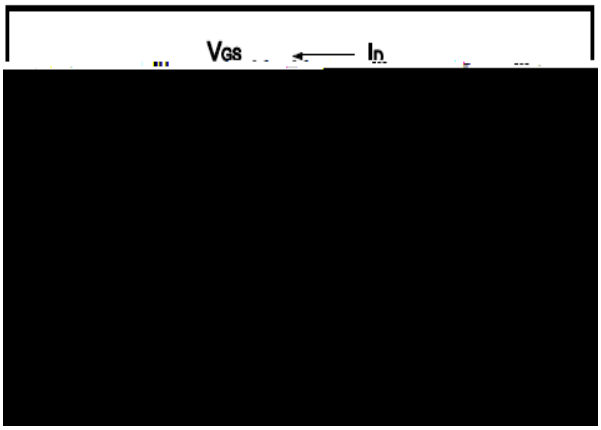

Fig.10 Gate Charge Waveform

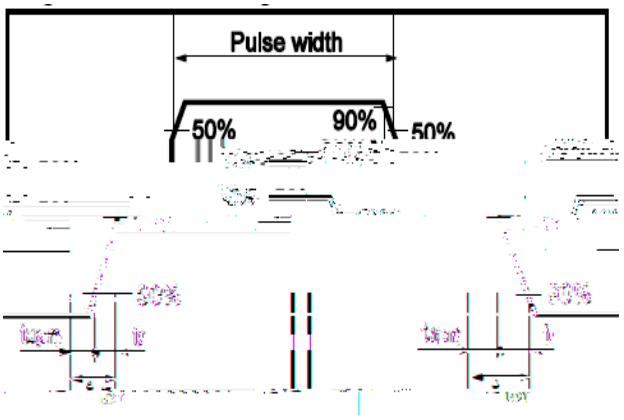

Fig.11 Avalanche Measurement Circuit

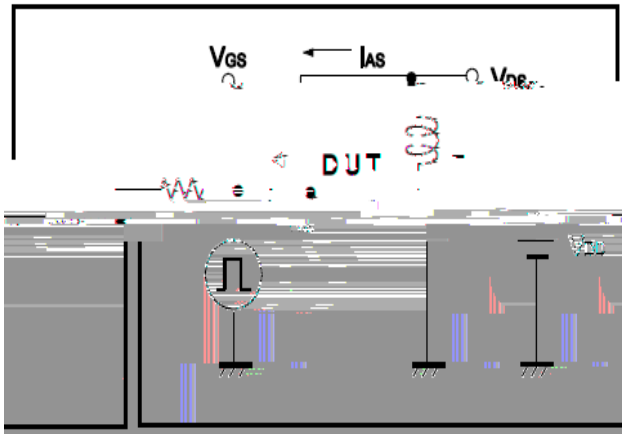

Fig.12 Avalanche Waveform