

Single Pulse Avalanche Energy (L=0.5mH, VGS=10V, Rg=25	E_{AS}	1200	mJ
Single Pulse Avalanche Energy (L=0.1mH, VGS=10V, Rg=25	E_{AS}	661	mJ

Thermal resistance

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	R_{thJC}	-	-	0.9	° C/W
Thermal resistance, junction - ambient	R_{thJA}	-	-	36	° C/W
Soldering temperature, wave soldering for 10s	T_{sold}	-	-	265	° C

Electronic Characteristics

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS} = 0V, I_D = 250\mu A$	40			V
Gate Threshold Voltage	$V_{GS(TH)}$	$V_{GS} = V_{DS}, I_D = 250\mu A$	1.4		2.5	V
Drain-Source Leakage Current	I_{DSS}	$V_{DS} = 40V, V_{GS} = 0V$			1.0	μA
Gate- Source Leakage Current	I_{GSS}	$V_{GS} = \pm 20V, V_{DS} = 0V$			100	nA
Static Drain-source On Resistance		$V_{GS} = 10V, I_D = 100A$				
		$V_{GS} = 4.5V, I_D = 70A$				
Forward Transconductance	g_{FS}	$V_{DS} = 25V, I_D = 50A$				
Source-drain voltage	V_{SD}	$I_S = 100A$				

Dynamic Characteristics

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Input capacitance	C_{iss}	$f = 1MHz,$ $V_{DS} = 25V$	-	6250	-	pF
Output capacitance	C_{oss}		-	1760	-	
Reverse transfer capacitance	C_{rss}		-	100	-	
Gate Resistance	R_g	$f = 1MHz$		1.6		
Total gate charge	Q_g	$V_{DD} = 20V$ $I_D = 20A$				



Turn-Off Delay time

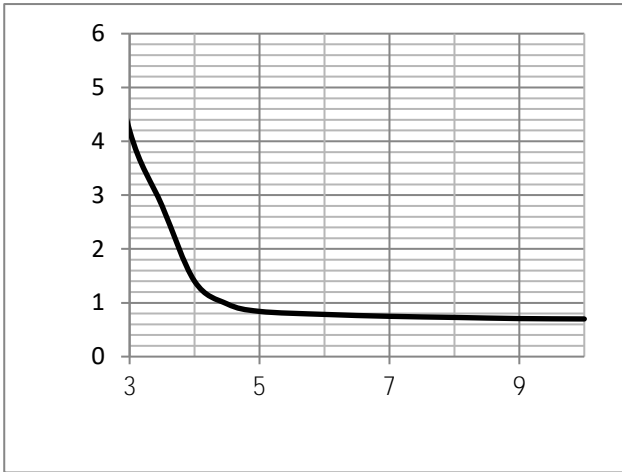


Fig.7 Gate Charge Characteristics

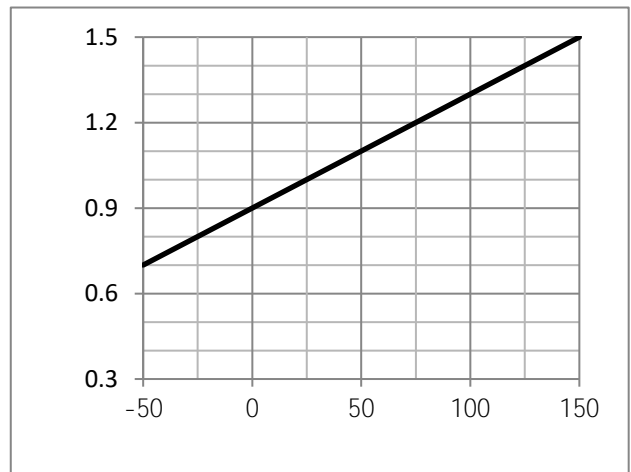


Fig.8 Capacitance vs Vds

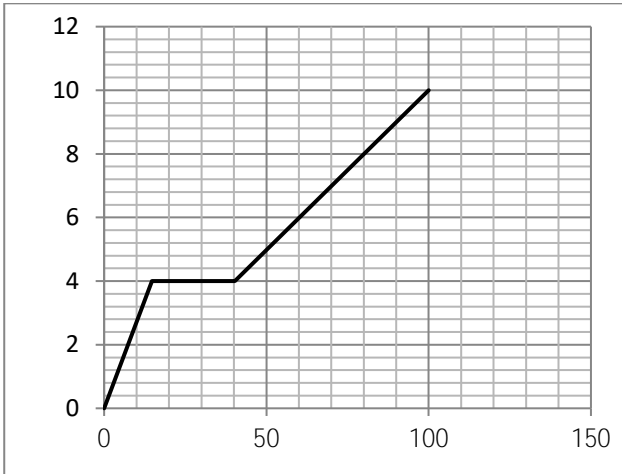


Fig.9

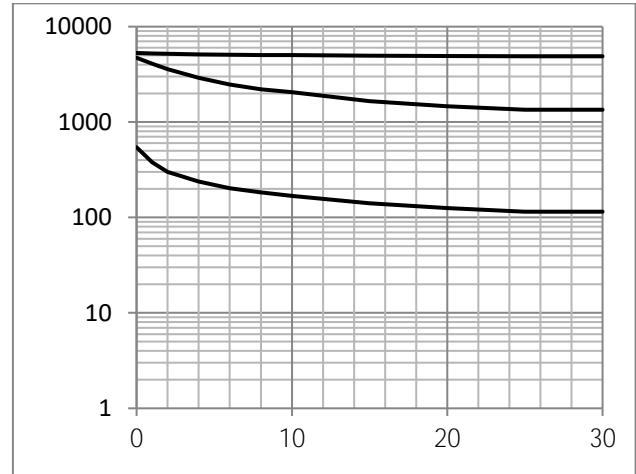


Fig.10

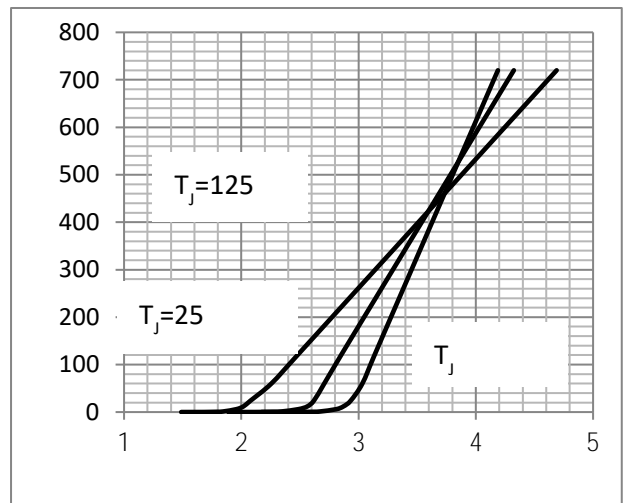


Fig.11 SOA Maximum Safe Operating Area

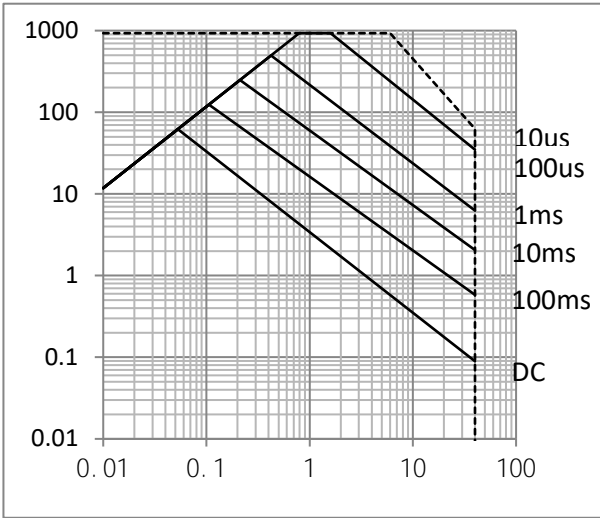


Fig.12 ID-Junction Temperature

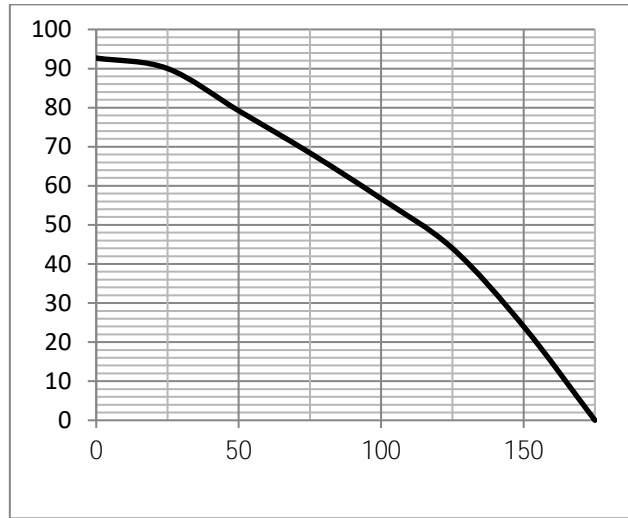


Fig.13

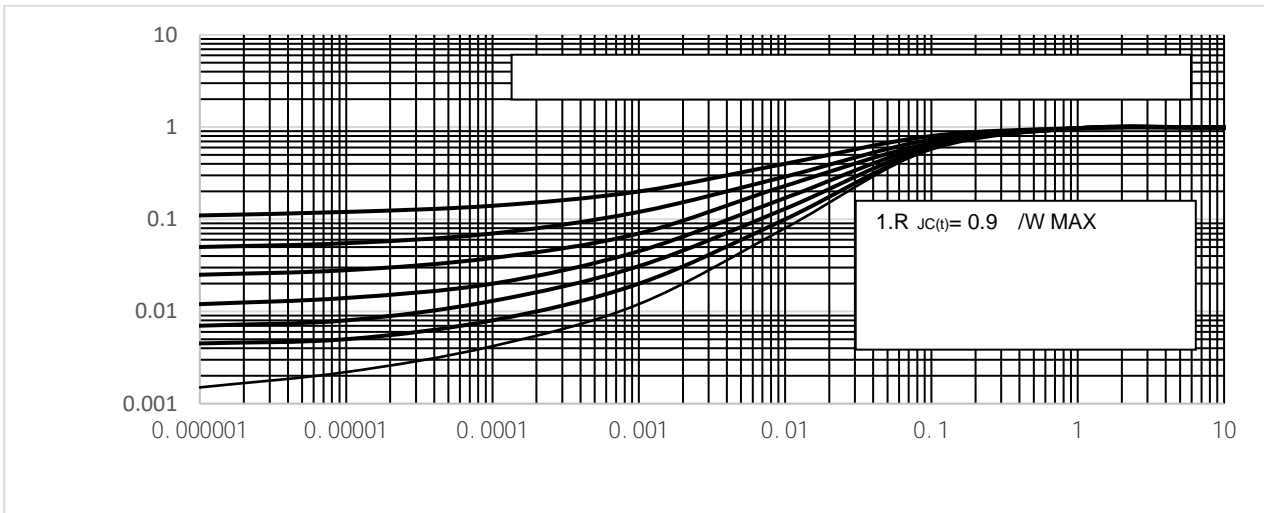


Fig.14 Switching Time Measurement Circuit

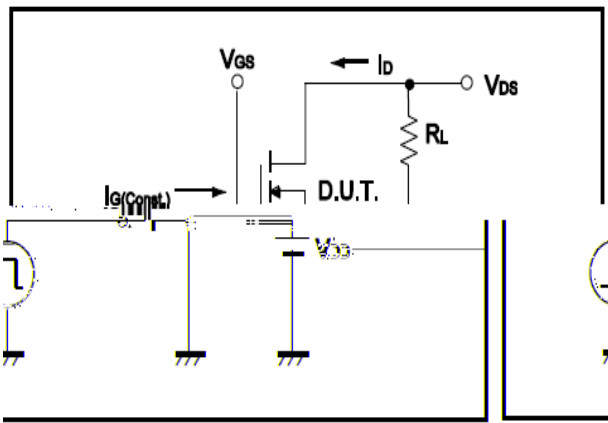


Fig.15 Gate Charge Waveform

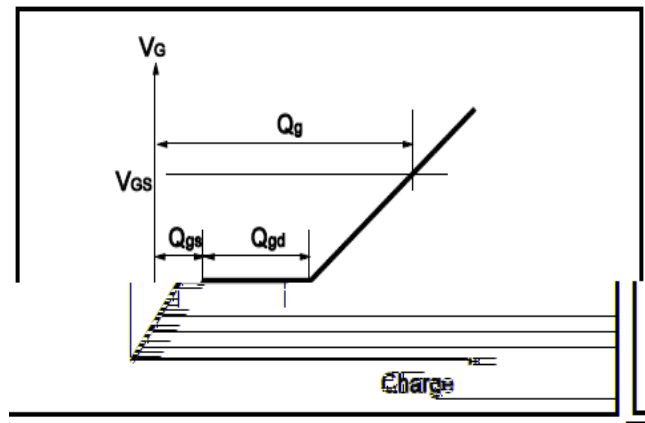




Fig.16 Resistive Switching Test Circuit

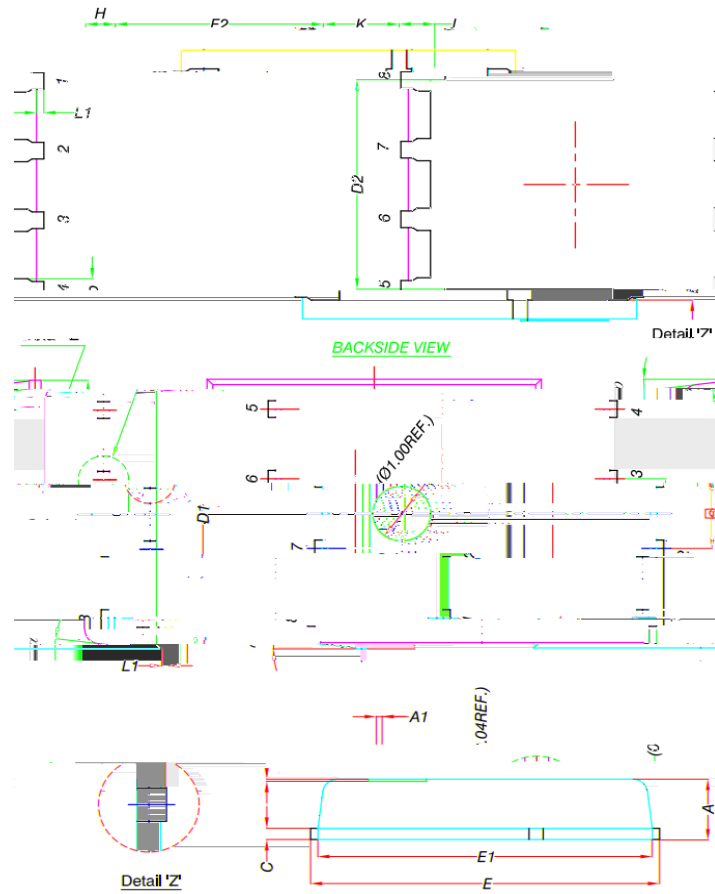
Fig.17 Resistive Switching Test Waveform

Fig.18



Dimensions DFN5x6

Unit mm



DIM.	MILLIMETERS		
	MIN.	NOM.	MAX.
A	0.90	1.00	1.10
A1	0	-	0.05
b	0.33	0.41	0.51
C	0.20	0.25	0.30
D1	4.80	4.90	5.00
D2	3.61	3.81	3.96

