D

T_C =25

Parameter	**Symbol**	Rating	Unit
Drain-Source Voltage	V_{DS}	30	V
Gate-Source Voltage	V_{GS}	±20	V
Continuous Drain Current	$I_{D@}$TC=25	26	A
	$I_{D@}$TC=75	20	A
	$I_{D@}$TC=100	16	A
Pulsed Drain Current	I_{DM}	78	A
Total Power Dissipation	P_D@TC=25	4.0	W
Total Power Dissipation	P_D@TA=25	0.75	W
Operating Junction Temperature	T_J	-55 to 150	
Storage Temperature	T_{STG}	-55 to 150	
Single Pulse Avalanche Energy	E_{AS}	320	mJ

Thermal resistance

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	R_{thJC}	-	-	32	° C/W
Thermal resistance, junction - ambient	R_{thJA}	-	-	170	° C/W
Soldering temperature, wave soldering 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	30			V
Gate Threshold Voltage	$V_{GS(TH)}$	V_{GS} =V_{DS}, I_D =250uA	1.2		2.5	V
Drain-Source Leakage Current	I_{DSS}	V_{DS}=30V, 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=15A				
		V_{GS}=4.5V, I_D=12A				
Forward Transconductance	g_{FS}	V_{DS} =25V, I_D=10A				
Source-drain voltage	V_{SD}	Is=15A				

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Input capacitance	C_{iss}	f = 1MHz, V_{DS}=25V	-	5200	-	pF
Output capacitance	C_{oss}		-	650	-	
Reverse transfer capacitance	C_{rss}		-	500	-	

Gate Charge characteristics(T_a = 25)

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Gate Risistance	Rg	f = 1MHz		1.0		
Total gate charge	Q_g	V_{DD} = 25V, I_D = 8A, V_{GS} = 10V	-	104	-	nC
Gate - Source charge	Q_{gs}		-	14	-	
Gate - Drain charge	Q_{gd}		-	31	-	
Turn-ON Delay time	$t_{D(on)}$			12		ns
Turn-ON Rise time				7		ns

Turn-Off Delay time				53		ns
Turn-Off Fall time				14		ns
				19.3		ns
				10.9		ns
				8.4		ns
				9.5		ns

Note: ;

Fig.1 Power Dissipation

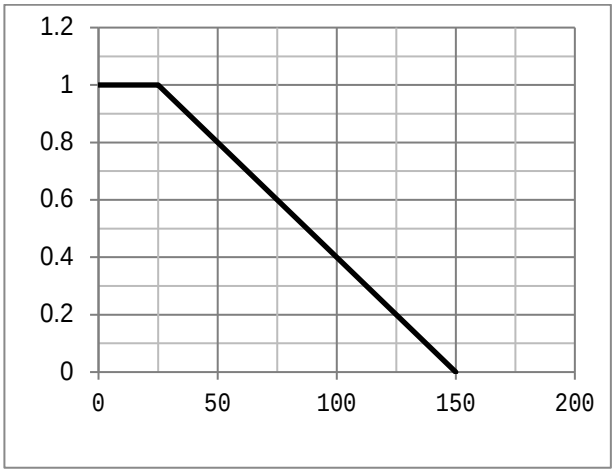

Fig.2 Typical output Characteristics

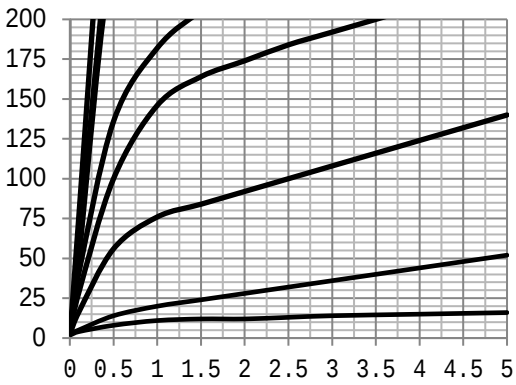

Fig.3 Threshold Voltage V.S Junction Temperature

Fig.4 Resistance V.S Drain Current

Fig.7 Safe Operating Area

Fig.8 Drain Current

Fig.9

Fig.10

Fig.17 Avalanche Measurement Circuit

Fig.18 Avalanche Waveform

(SOP8)

Unit mm

SYMBOL	min	TYP	max	SYMBOL	min		max
A	4.80		5.00	C	1.30		1.50
A1	0.37		0.47	C1	0.55		0.75
A2		1.27		C2	0.55		0.65
A3		0.41		C3	0.05		0.20
B	5.80		6.20	C4	0.19	0.20	0.23
B1	3.80		4.00	D		1.05	
B2							