



Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DS}$	30	V
Gate-Source Voltage	$V_{GS}$	$\pm 20$	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 <sub>thJC</sub>	-	-	32	° C/W
Thermal resistance, junction - ambient	R <sub>thJA</sub>	-	-	170	° C/W
Soldering temperature, wave soldering for 10s	T <sub>sold</sub>	-	-	265	° C

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Drain-Source Breakdown Voltage	BV <sub>DSS</sub>	V <sub>GS</sub> =0V, I <sub>D</sub> =250uA	30			V
Gate Threshold Voltage	V <sub>GS(TH)</sub>	V <sub>GS</sub> =V <sub>DS</sub> , I <sub>D</sub> =250uA	1.2		2.5	V
Drain-Source Leakage Current	I <sub>DSS</sub>	V <sub>DS</sub> =30V, V <sub>GS</sub> =0V			1.0	uA
Gate- Source Leakage Current	I <sub>GSS</sub>	V <sub>GS</sub> =±20V, V <sub>DS</sub> =0V			100	nA
Static Drain-source On Resistance		V <sub>GS</sub> =10V, I <sub>D</sub> =15A				
		V <sub>GS</sub> =4.5V, I <sub>D</sub> =12A				
Forward Transconductance	g <sub>FS</sub>	V <sub>DS</sub> =25V, I <sub>D</sub> =10A				
Source-drain voltage	V <sub>SD</sub>	I <sub>S</sub> =15A				

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Input capacitance	C <sub>iss</sub>	f = 1MHz, V <sub>DS</sub> =25V	-	5200	-	pF
Output capacitance	C <sub>oss</sub>		-	650	-	
Reverse transfer capacitance	C <sub>rss</sub>		-	500	-	

**Gate Charge characteristics(T<sub>a</sub> = 25 )**

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Gate Resistance	R <sub>g</sub>	f = 1MHz		1.0		
Total gate charge	Q <sub>g</sub>	V <sub>DD</sub> = 25V I <sub>D</sub> = 8A V <sub>GS</sub> = 10V	-	104	-	nC
Gate - Source charge	Q <sub>gs</sub>		-	14	-	
Gate - Drain charge	Q <sub>gd</sub>		-	31	-	
Turn-ON Delay time	t <sub>D(on)</sub>			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:

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Fig.1 Power Dissipation

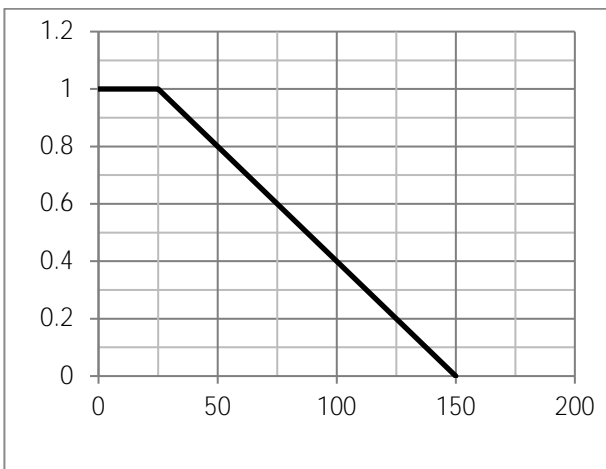


Fig.2 Typical output Characteristics

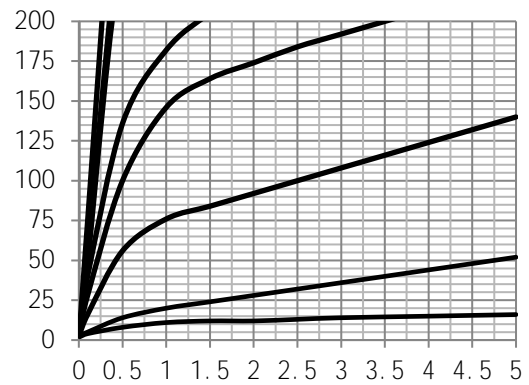


Fig.3 Threshold Voltage V.S Junction Temperature

Fig.4 Resistance V.S Drain Current



Fig.7 Safe Operating Area

Fig.8 Drain Current

Fig.9

Fig.10

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Fig.17 Avalanche Measurement Circuit

Fig.18 Avalanche Waveform



(SOP8)

Unit mm

SYMBOL	mi n	TYP	max	SYMBOL	mi n		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							