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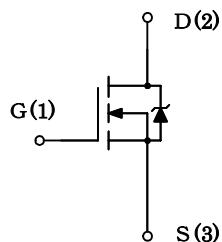
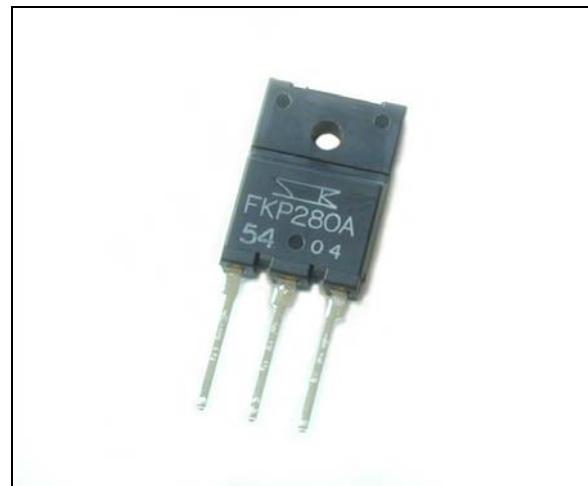
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■Features

- Low on-resistance
- Low input capacitance
- Avalanche energy capability guaranteed

■Applications

- PDP driving
- High speed switching

■Equivalent circuit**■Package---FM100(TO3P Full Mold)****■Absolute maximum ratings**

(Ta=25°C)

Parameter	Symbol	Rating	Unit
Drain to Source Voltage	VDSS	280	V
Gate to Source Voltage	VGSS	±30	V
Continuous Drain Current	ID	±40A	A
Pulsed Drain Current	ID(pulse) ^{*1}	±160A	A
Maximum Power Dissipation	PD	85 (Tc=25°C)	W
Single Pulse Avalanche Energy	EAS ^{*2}	400	mJ
Avalanche Current	IAS	40	A
Channel Temperature	Tch	150	°C
Storage Temperature	Tstg	-55 to +150	°C

^{*1}1. PW ≤ 100 μsec, duty cycle ≤ 1%^{*2}2. VDD=20V, L=460μH, ILp=40A, unclamped, RG=50Ω, See Fig.1

FKP280A

September, 2005

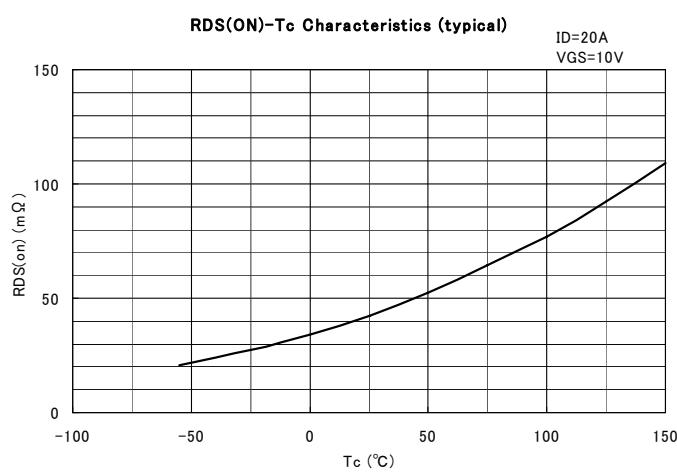
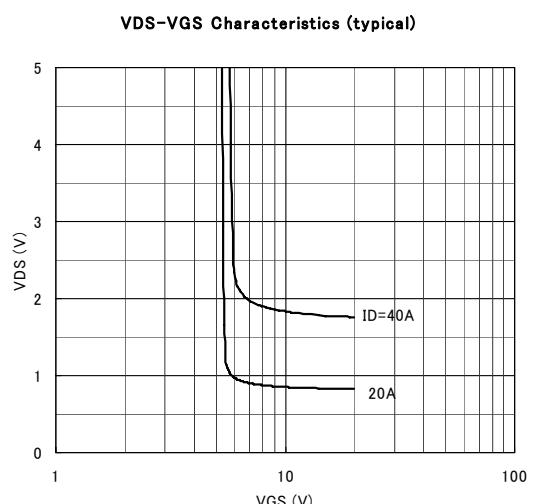
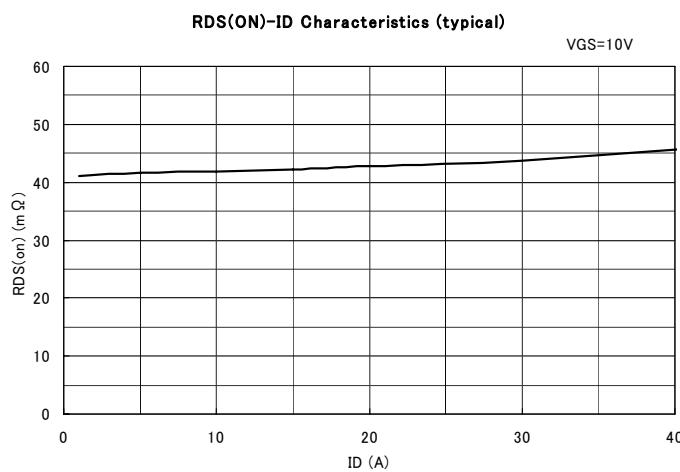
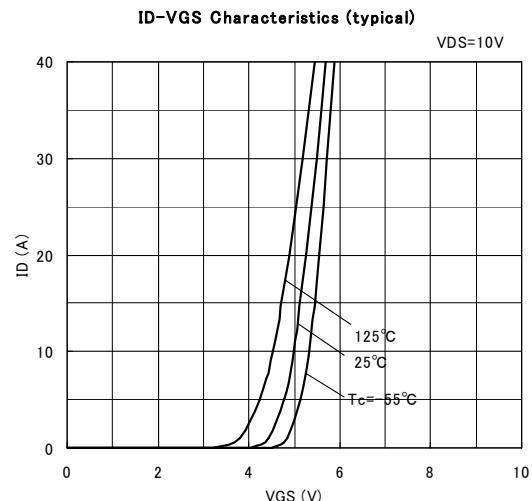
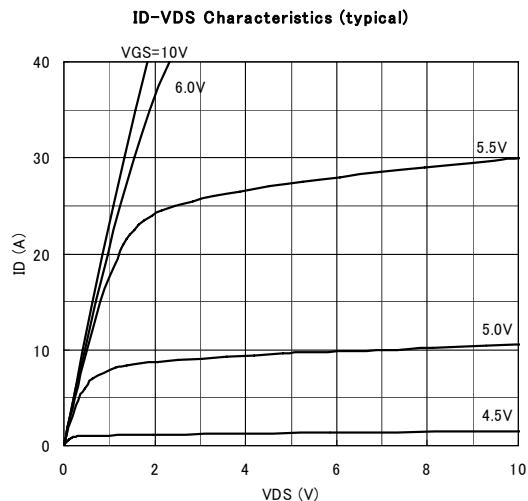
Electrical characteristics

(Ta=25°C)

Parameter	Symbol	Test Conditions	Limits			Unit
			MIN.	TYP.	MAX.	
Drain to Source breakdown Voltage	V(BR)DSS	ID=100μA, VGS=0V	280			V
Gate to Source Leakage Current	IGSS	VGS=±30V			±100	nA
Drain to Source Leakage Current	IDSS	VDS=280V, VGS=0V			100	μA
Gate Threshold Voltage	VTH	VDS=10V, ID=1mA	3. 0		4. 5	V
Forward Transconductance	Re(Yfs)	VDS=10V, ID=20A	25	38		S
Static Drain to Source On-Resistance	RDS(ON)	ID=20A, VGS=10V		46	53	mΩ
Input Capacitance	Ciss	VDS=25V VGS=0V f=1MHz		3800		pF
Output Capacitance	Coss			580		
Reverse Transfer Capacitance	Crss			190		
Turn-On Delay Time	td(on)	ID=20A, VDD≈140V RL=7Ω, VGS=10V Rg=5Ω See Fig.2		40		ns
Rise Time	tr			90		
Turn-Off Delay Time	td(off)			160		
Fall Time	tf			70		
Source-Drain Diode Forward Voltage	VSD	ISD=40A, VGS=0V		1.0	1.5	V
Gate Threshold Voltage Temp. Coefficient	ΔVTH/ΔTch	VDS=10V, ID=1mA		-11		mV/°C

FKP280A

September, 2005

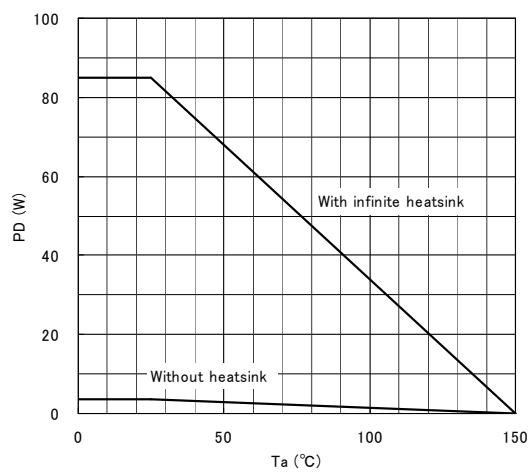
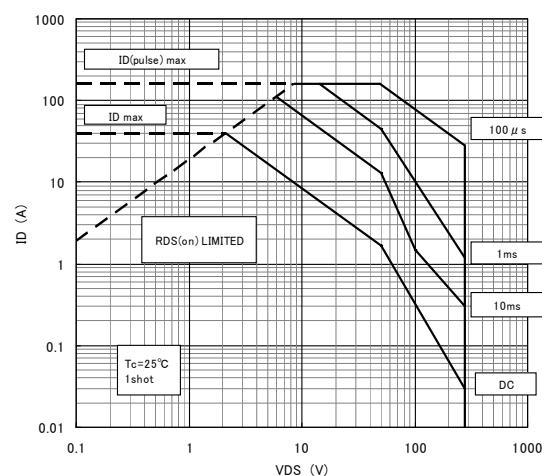
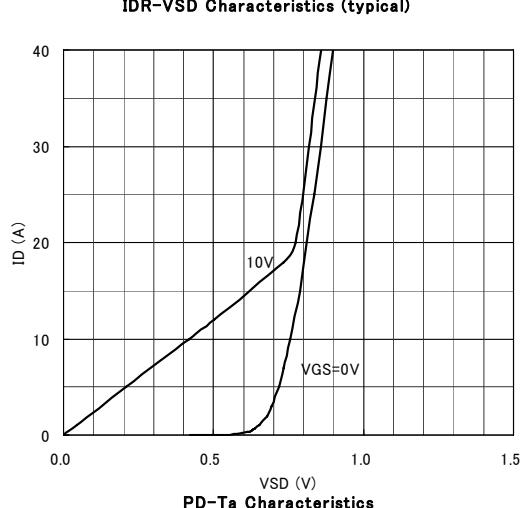
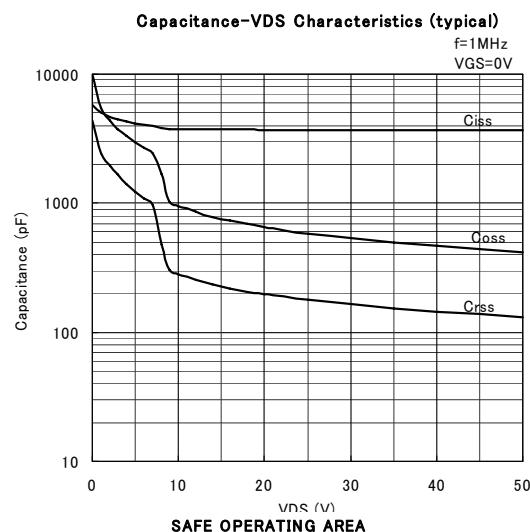
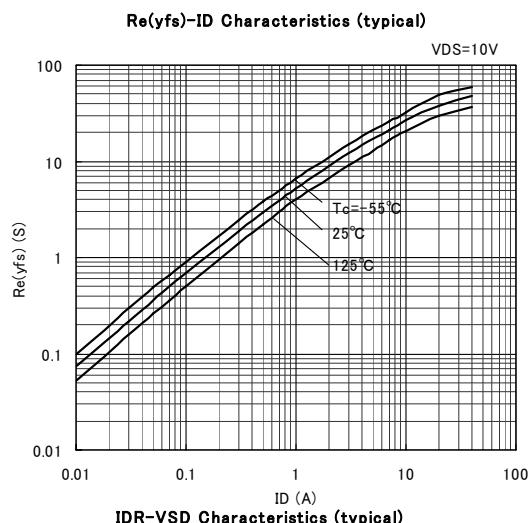
Characteristic Curves (Tc=25°C)

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Characteristic Curves (T_c=25°C)

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Fig.1 Unclamped Inductive Test Method

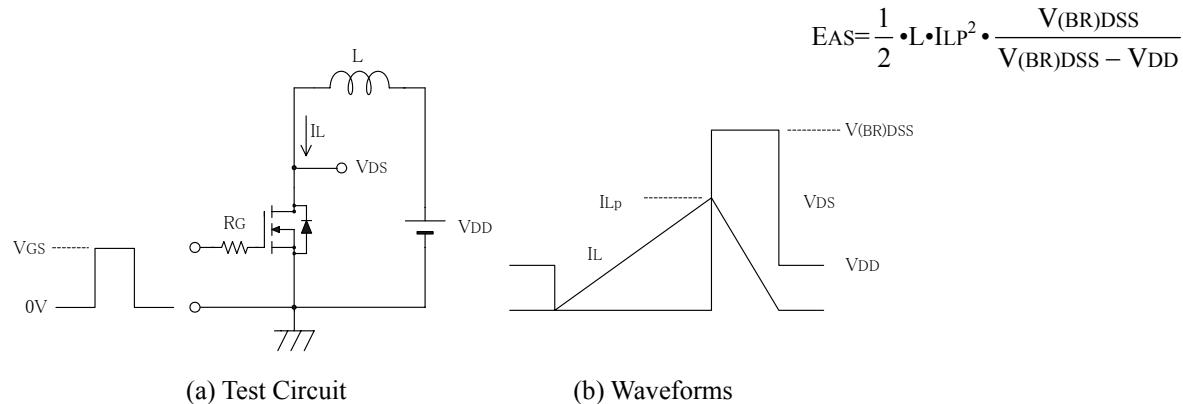
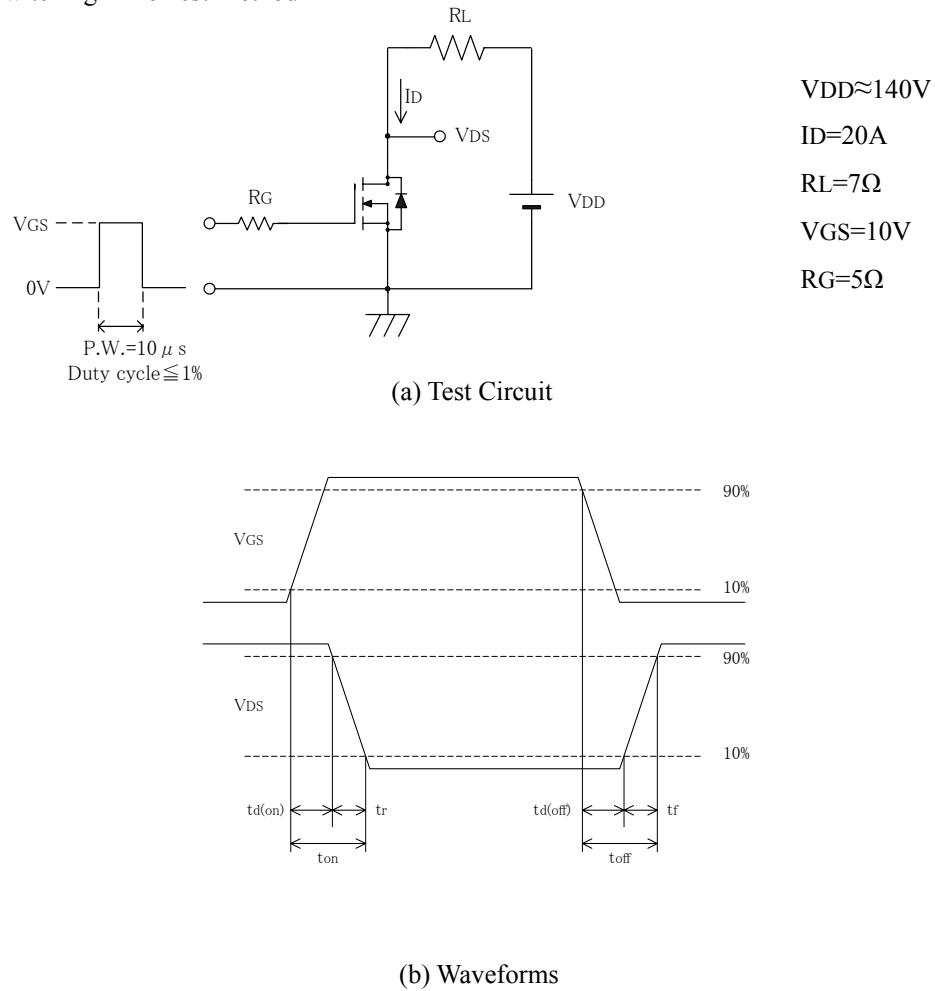


Fig.2 Switching Time Test Method



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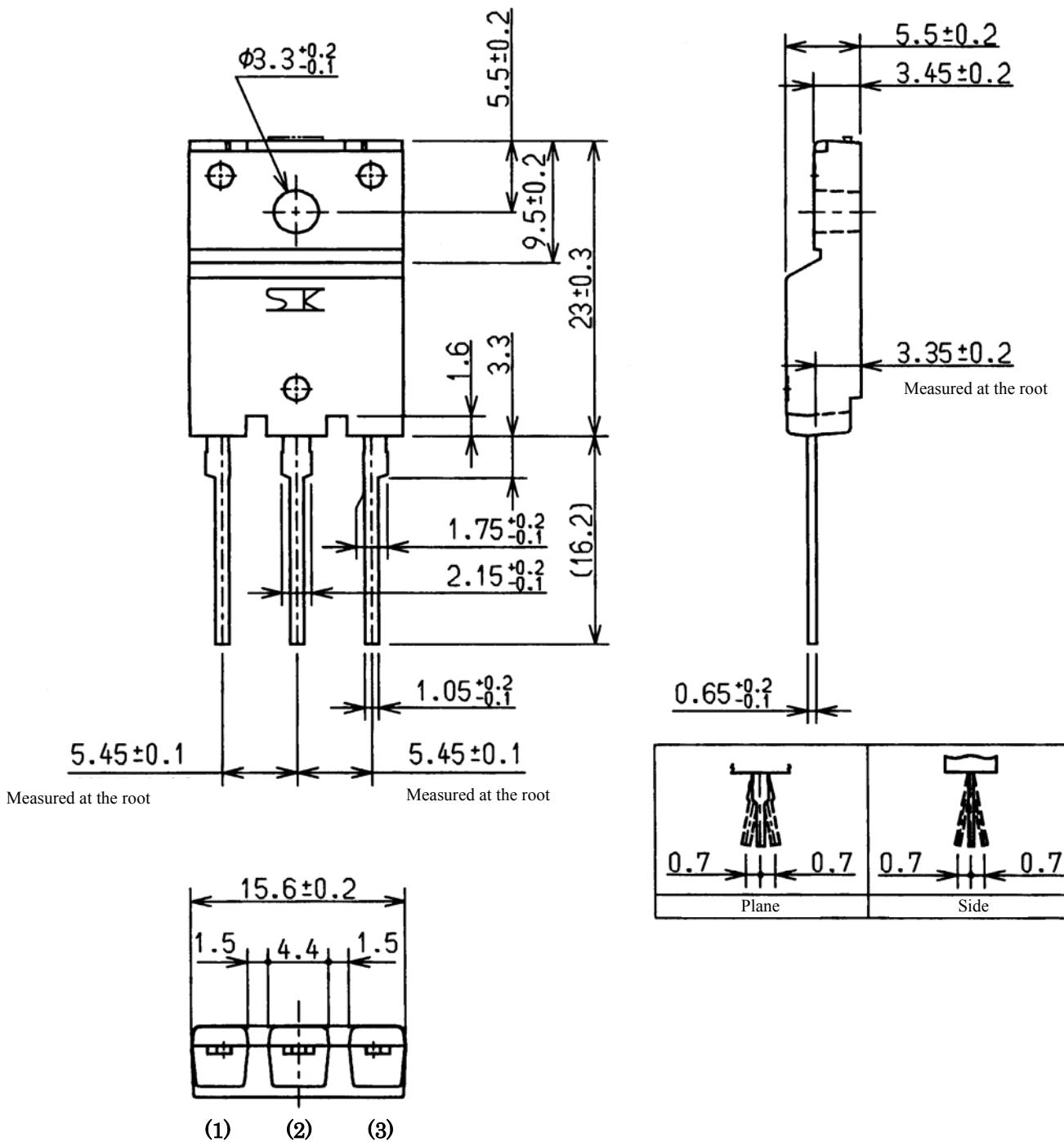
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FKP280A

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Outline

FM100 (TO3P Full Mold)



Mass: Approx.6.5g

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FKP280A

September, 2005

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