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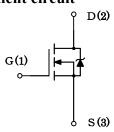
■Features

- •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

G(1) S(3) D(2) S(3)	aed s	of Jess 1	<i>J</i>
		(Ta=2	5°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	А
Channel Temperature	Tch	150	°C
Storage Temperature	Tstg	-55 to +150	°C

^{*1.} $PW \le 100 \mu sec$, duty cycle $\le 1\%$

^{*2.} VDD=20V, L=460 μ H, ILp=40A, unclamped, RG=50 Ω , See Fig.1



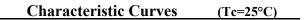
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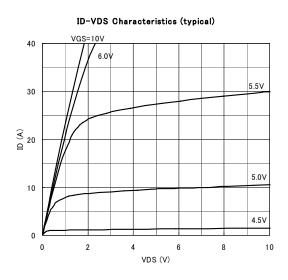
Electrical characteristics

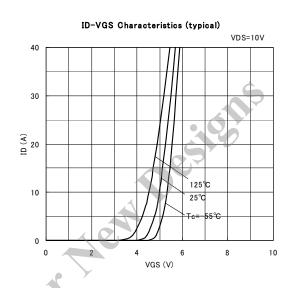
(Ta=25°C)

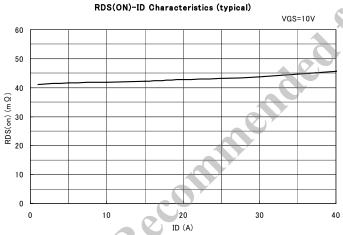
Parameter	Symbol	Test Conditions	Limits			I Init
raiametei		Test Conditions	MIN.	TYP.	MAX.	Unit
Drain to Source breakdown Voltage	V(BR)DSS	ID=100μA,VGS=0V	280			V
Gate to Source Leakage Current	IGSS	VGS=±30V			±100	nA
Drain to Source Leakage Current	IDSS	VDS=280V, VGS=0V			100	μΑ
Gate Threshold Voltage	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		3800		
Output Capacitance	Coss	VGS=0V		580		pF
Reverse Transfer Capacitance	Crss	f=1MHz		190		
Turn-On Delay Time	td(on)	ID=20A, VDD≈140V		40		
Rise Time	t r	RL=7Ω, VGS=10V		90		
Turn-Off Delay Time	td(off)	Rg=5Ω		160		ns
Fall Time	t f	See Fig.2		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

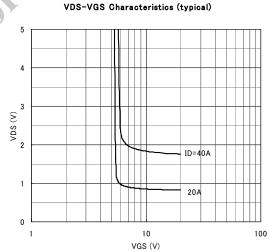
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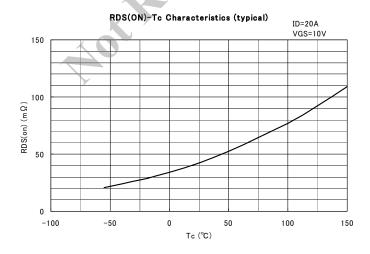




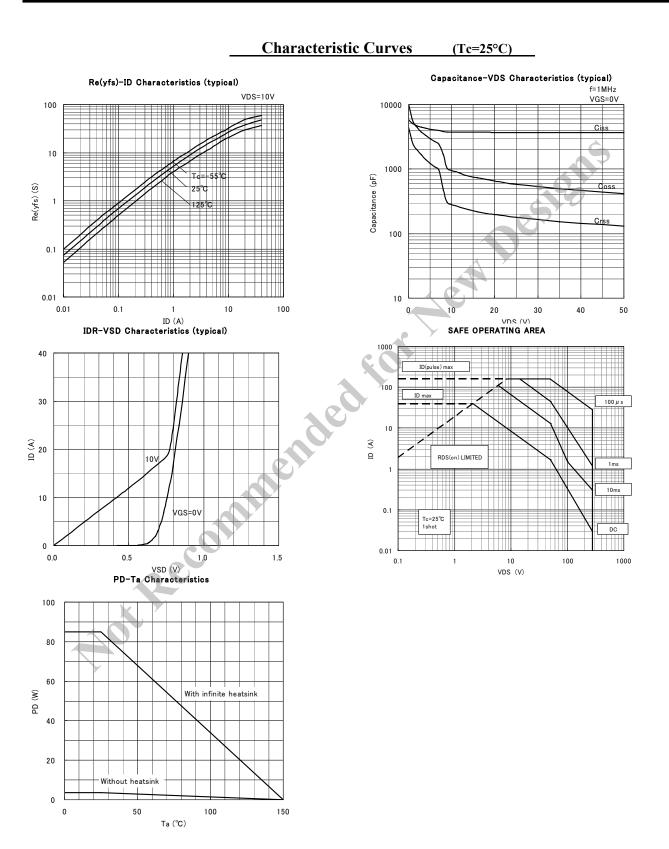








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Fig.1 Unclamped Inductive Test Method

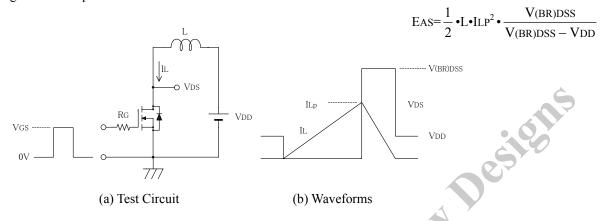
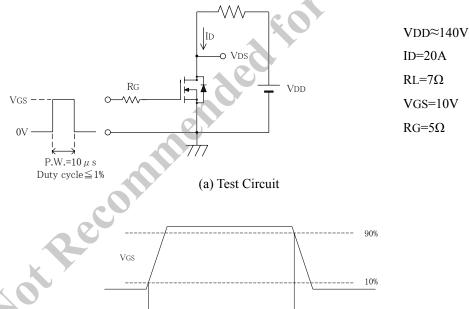


Fig.2 Switching Time Test Method



VGS 10%

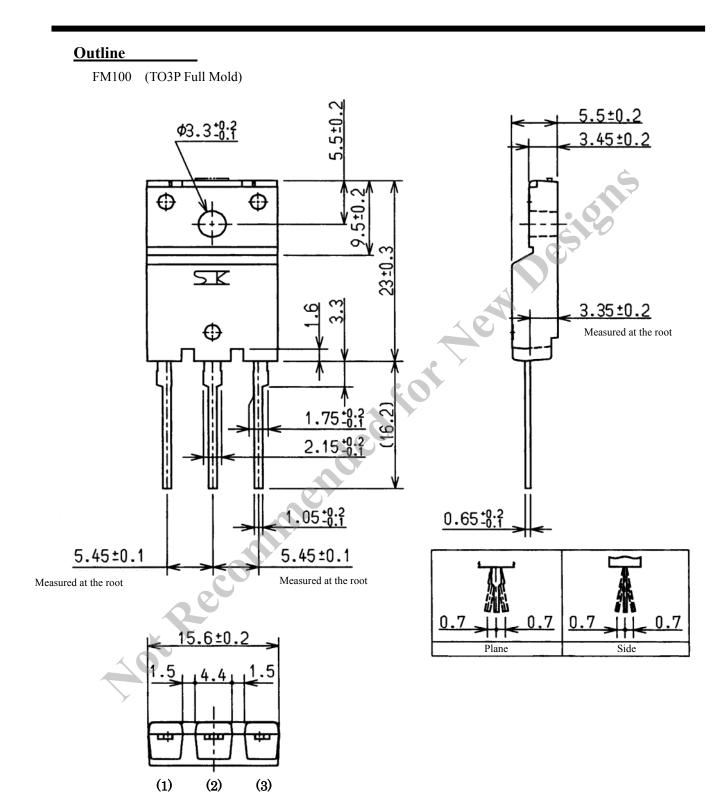
VDS 10%

td(on) tr td(off) tf toff

(b) Waveforms



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Mass: Approx.6.5g



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