"Yـ / Descriptions

TO-220FL N MOS N-CHANNEL MOSFET in a TO-220FL Plastic Package.

◕ È / Features

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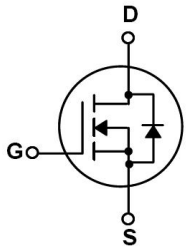
Low gate charge, low crss, fast switching.

¥ ٍ / Applications

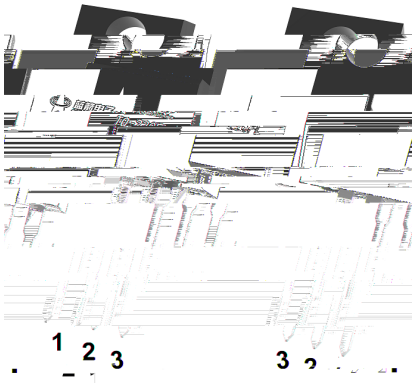
DC/DC

These devices are well suited for high efficiency switching DC/DC converters and switch mode power supplies.

Л ̃ ̊ ≠ ɛ / Equivalent Circuit



ẵ ﾉ ̈ / Pinning



PIN1 G PIN 2 D PIN 3 S

ł. ʜ ̈ / Marking

See Marking Instructions.

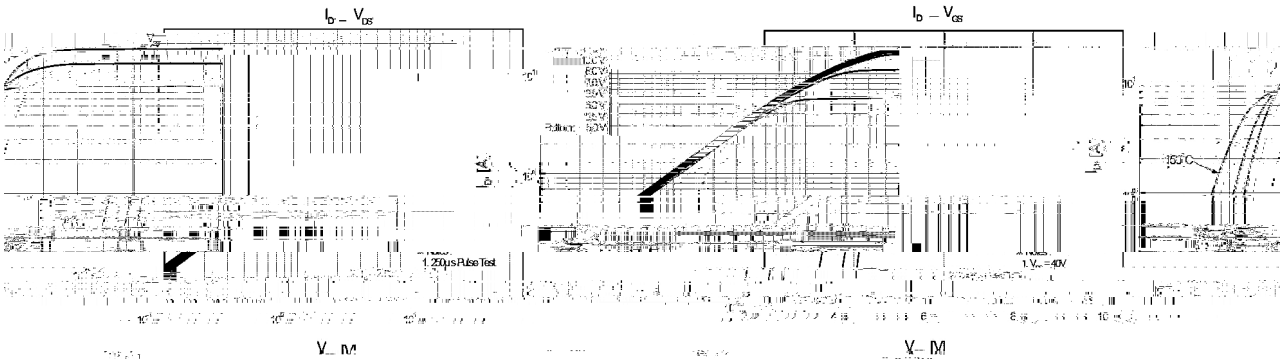
ώ ۥ ᾗ Ą / Absolute Maximum Ratings(Ta=25 ɹ)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	650	V
Drain Current	I_D(Tc=25)	7.0	A
Drain Current	I_D(Tc=100)	4.4	A
Drain Current - Pulsed	I_{DM}	28	A
Gate-Source Voltage	V_{GSS}	±30	V
Single Pulsed Avalanche Energy	E_{AS}	420	mJ
Repetitive Avalanche Energy	E_{AR}	14.7	mJ
Avalanche Current	I_{AR}	7.0	A
Power Dissipation	P_D(Tc=25)	48	W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to 150	

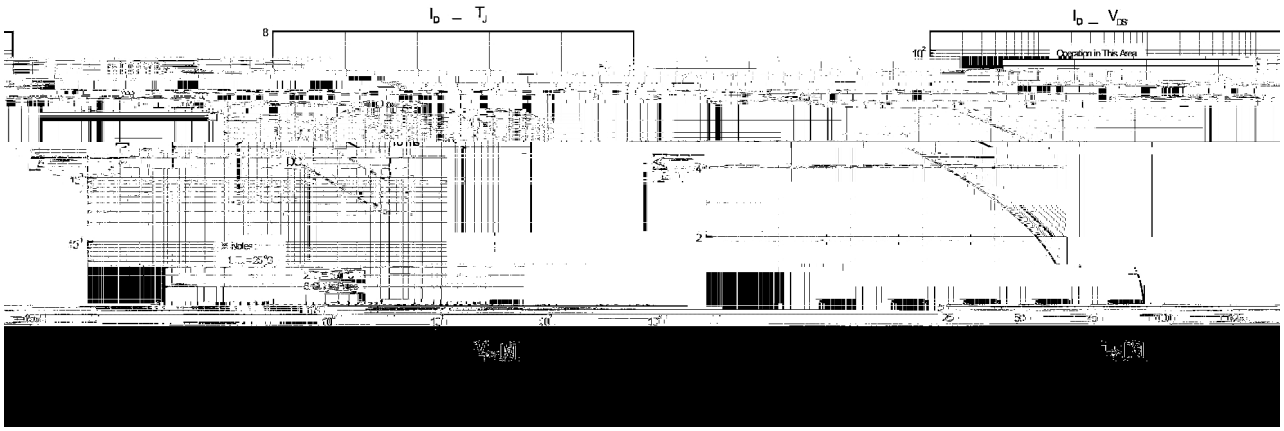
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V I_D=250μA	650			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=650V V_{GS}=0V			1.0	μA
		V_{DS}=520V T_C=125			100	μA
Gate-Body Leakage Current, Forward	I_{GSS}	V_{GS}=±30V V_{DS}=0V			±100	nA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=250μA	2.0		4.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS}=10V I_D=3.5A		1.1	1.3	Ω
Forward Transconductance	g_{FS}	V_{DS}=40V I_D=3.5A		8.2		S
Drain-Source Diode Forward Voltage	V_{SD}	V_{GS}=0V I_S=7.0A			1.4	V
Input Capacitance	C_{iss}	V_{DS}=25V V_{GS}=0V f=1.0MHz		1100	1500	pF
Output Capacitance	C_{oss}			110	150	pF
Reverse Transfer Capacitance	C_{rss}			12	16	pF
Total Gate Charge	Qg	I_D =7.0A V_{DS} = 520V V_{GS} = 10V		28		nC
Gate-to-Source Charge	Qgs			7		nC
Gate-to-Drain Charge	Qgd			12		nC
Turn-On Delay Time	$t_{d(on)}$					

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≠ ∃ ÃΈ ∨ ∫ / Electrical Characteristic Curve

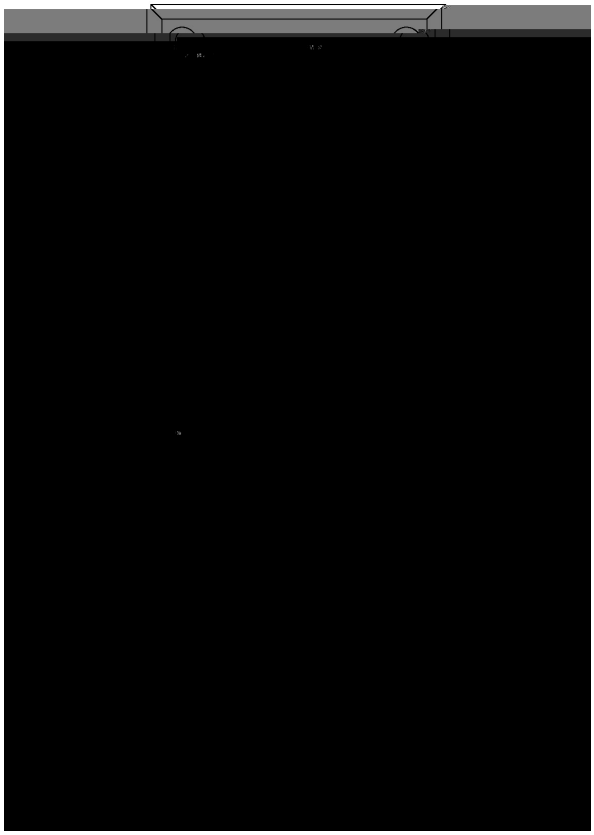






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Note:

BR:	Company Code
7N65:	Product Type Code
****:	Lot No. Code, code change with Lot No