

BRFL13N50

Rev.F Mar.-2023

/ Descriptions

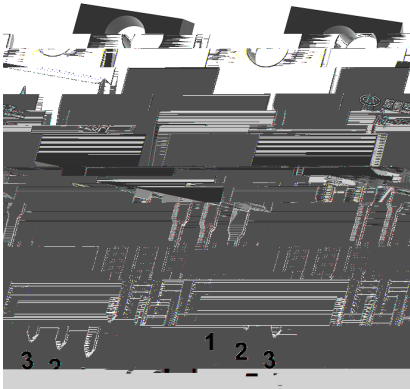
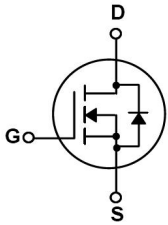
TO-220FL N MOS N-CHANNEL MOSFET in a TO-220FL Plastic Package.

/ Features

Ultra low gate charge, low effective output capacitance, high switch speed.

AC/DC

It is very suitable for various AC/DC power conversion in switching mode operation for system miniaturization and higher efficiency.



PIN1 G

PIN 2 D

PIN 3 S

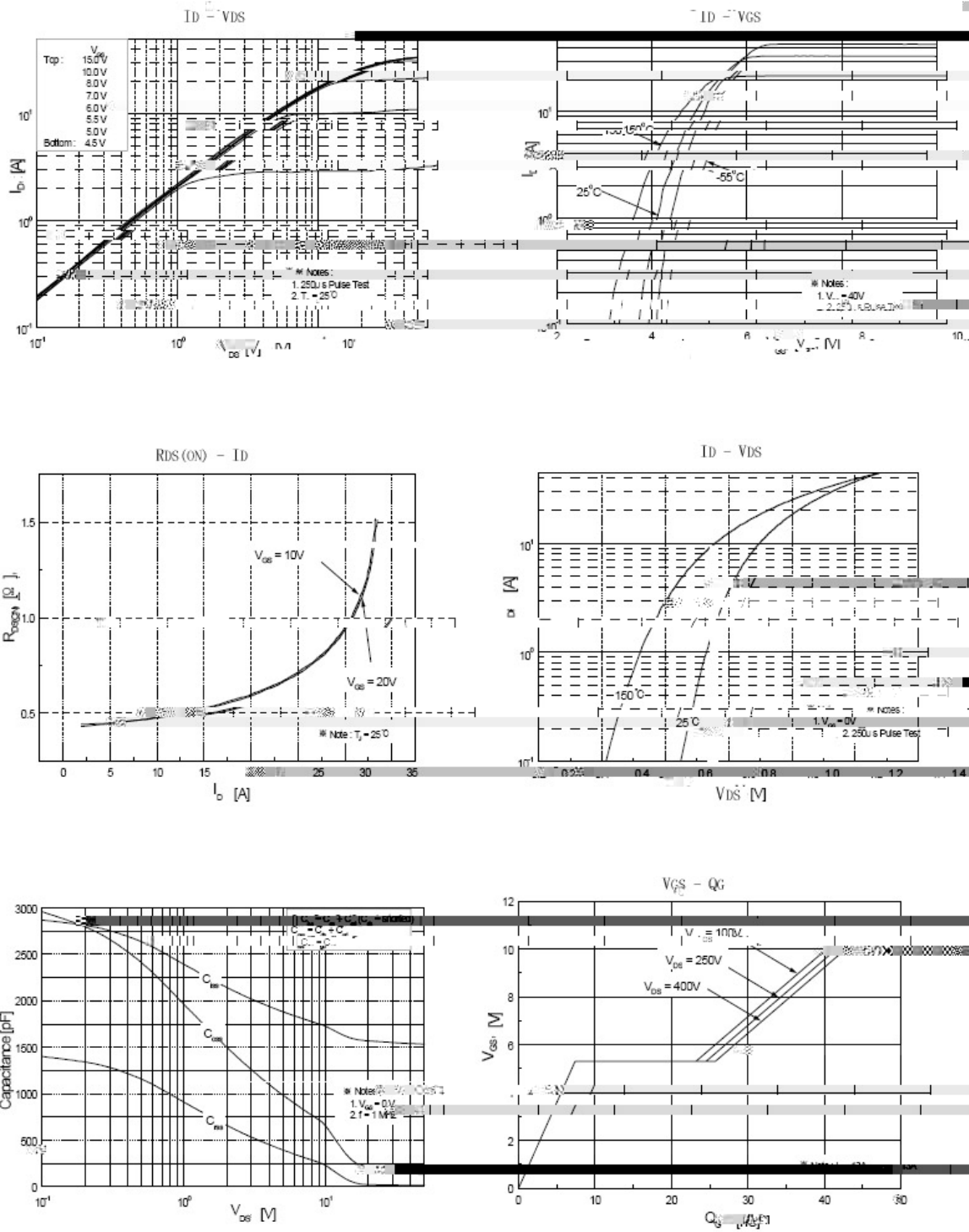
/ Marking

See Marking Instructions.

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	500	V
Drain Current	$I_D(T_C=25^\circ\text{C})$	13	A
	$I_D(T_C=100^\circ\text{C})$	8	A
Drain Current - Pulsed	I_{DM}	52	A
Gate-Source Voltage	V_{GS}	± 30	V
Single Pulsed Avalanche Energy	E_{AS}	860	mJ
Repetitive Avalanche Energy	E_{AR}	19.5	mJ
Avalanche Current	I_{AR}	13	A
Power Dissipation	$P_D(T_C=25^\circ\text{C})$	48	W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to 150	

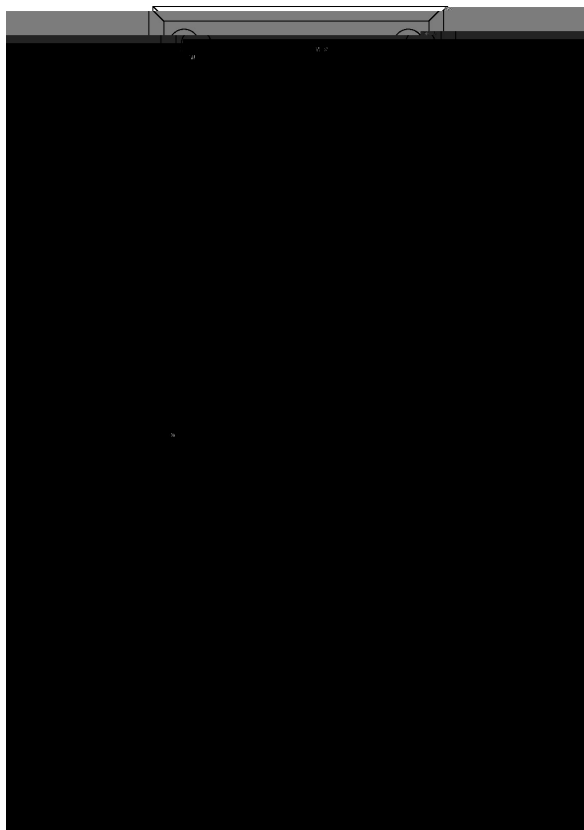
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DS}	$V_{GS}=0V$ $I_D=250\text{ A}$	500			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=500V$ $V_{GS}=0V$			1.0	A
		$V_{DS}=400V$ $T_C=125^\circ\text{C}$			10	A
Gate-Body Leakage Current, Forward	I_{GSS}	$V_{GS}=\pm 30V$ $V_{DS}=0V$			± 0.1	A

/ Electrical Characteristic Curve



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/ Marking Instructions



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Note:

BR: Company Code

13N50: Product Type

****: Lot No. Code, code change with Lot No

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