N-Channel Enhancement Mode MOSFET

BL8N70F

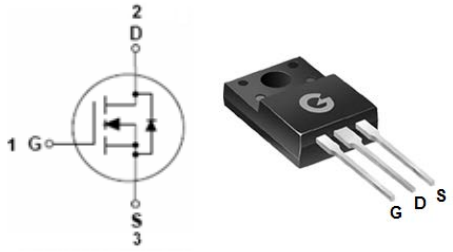
Features

- Ultra low gate charge
- Fast switching capability
- Avalanche energy specified

HF

Mechanical Data

- Case: ITO-220AB
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208



ITO-220AB

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
BL8N70F	ITO-220AB	50pcs / Tube	8N70F

Maximum Ratings (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Drain-to-Source Voltage	V_{DSS}	700	V
Gate-to-Source Voltage	V_{GSS}	±30	V
Continuous Drain Current (T_C = 25°C)	I_D	8	A
Continuous Drain Current (T_C = 100°C)		5	A
Pulsed Drain Current *1	I_{DM}	32	A

Thermal Characteristics

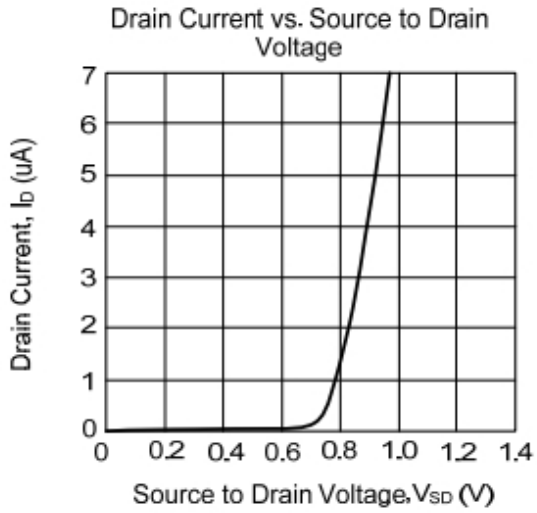
Parameter	Symbol	Value	Unit
Operating Junction Temperature Range	T_J	-55 ~ +150	°C
Storage Temperature Range	T_{STG}	-55 ~ +150	°C

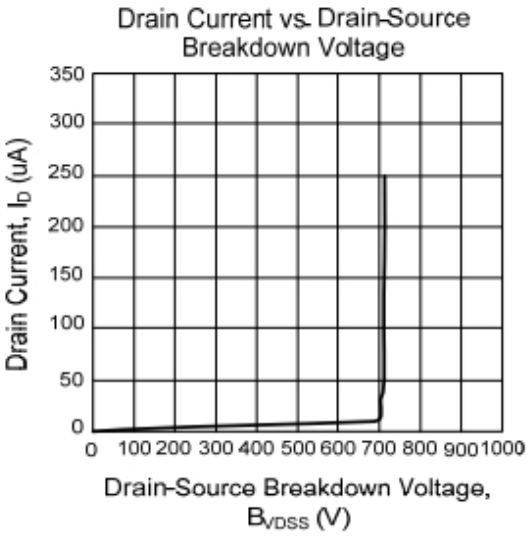
Electrical Characteristics (@ T_A = 25°C unless otherwise specified)

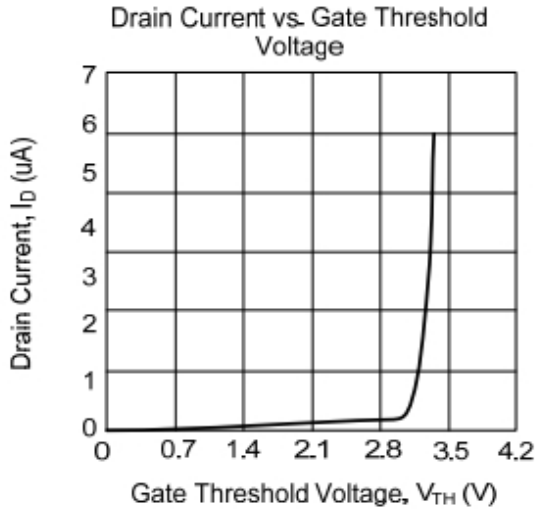
Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Unit
Static Characteristics						
V_{DSS}	Drain-Source Breakdown Voltage	V_{GS} = 0V, I_D = 250μA	700	-	-	V
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS} = 700V, V_{GS} = 0V	-	-	10	μA
I_{GSS}	Gate-Body Leakage Current	V_{GS} = ±30V, V_{DS} = 0V	-	-	±100	nA
On Characteristics						
$R_{DS(ON)}$	Static Drain-Source On-resistance *1	V_{GS} = 10V,I_D = 4A	-	-	1.15	Ω
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS} = V_{GS}, I_D = 250μA	2	-	4	V
Dynamic Characteristics						
C_{ISS}	Input Capacitance	V_{GS} = 0V V_{DS} = 25V f = 1.0MHz	-	1556	-	pF
C_{OSS}	Output Capacitance		-	115	-	
C_{RSS}	Reverse Transfer Capacitance		-	4.7	-	
Source-Drain Diode Characteristics						
V_{SD}	Diode Forward Voltage *1	I_{SD} = 8A, V_{GS} = 0V	-	-	1.5	V

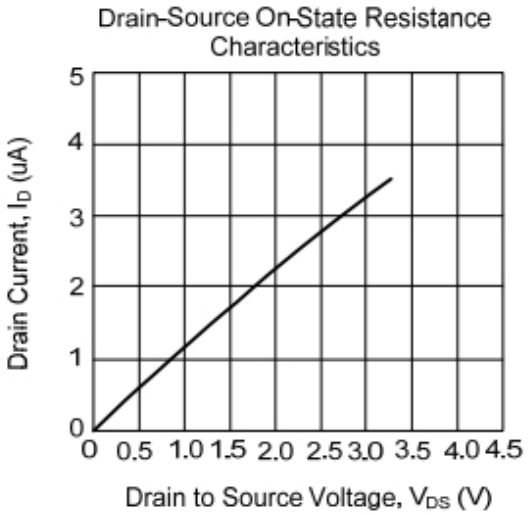
Note 1: The data tested by pulsed, pulse width ≤ 300μs, duty cycle ≤ 2%

Ratings and Characteristics Curves (@ T_A = 25°C unless otherwise specified)

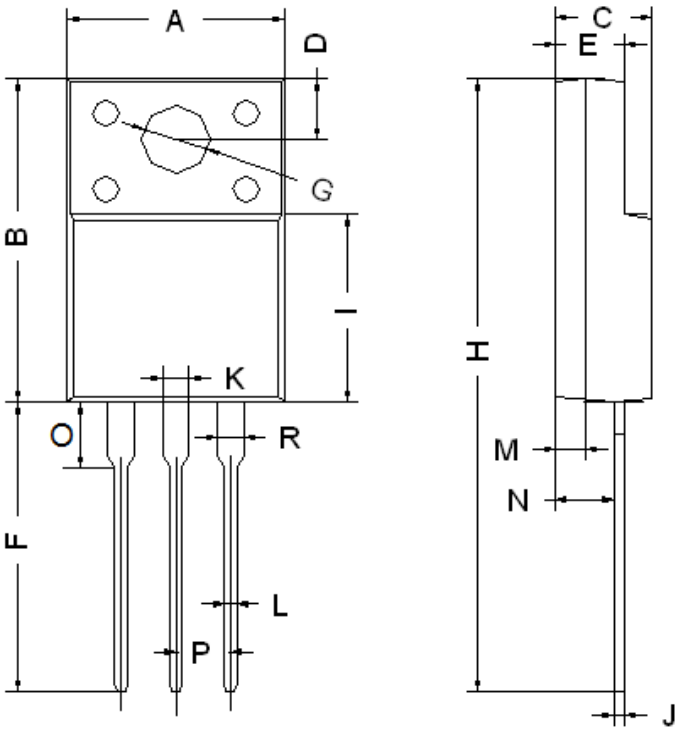








Package Outline Dimensions (Unit: mm)



ITO-220AB		
Dimension	**Min.**	**Max.**
A	9.90	10.30
B	14.80	15.20
C	4.30	4.70
D	2.50	2.90
E	2.80	3.30
F	13.00	13.60
G	3.10	3.30
H	28.00	28.60
I	7.90	8.90
J	0.40	0.60
L	0.70	0.90
M	1.30	1.50
N	2.60	2.80
O	2.60	3.10
P	2.45	2.65
K/R	1.10	1.30

IMPORTANT NOTICE