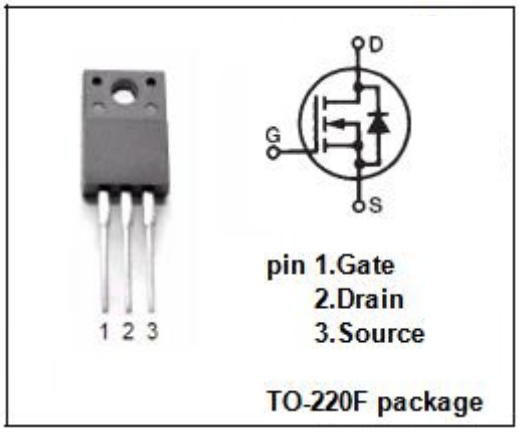
iscN-Channel MOSFET Transistor IRFIB5N65A

• **FEATURES**
• Low drain-source on-resistance:
  R_{DS}(ON) =0.93Ω (MAX)
• Enhancement mode:
  Vth = 2.0 to 4.0V (V_{DS} = 10 V, I_D=0.25mA)
• 100% avalanche tested
• Minimum Lot-to-Lot variations for robust device performance and reliable operation

• **DESCRIPTION**
• Switching Voltage Regulators

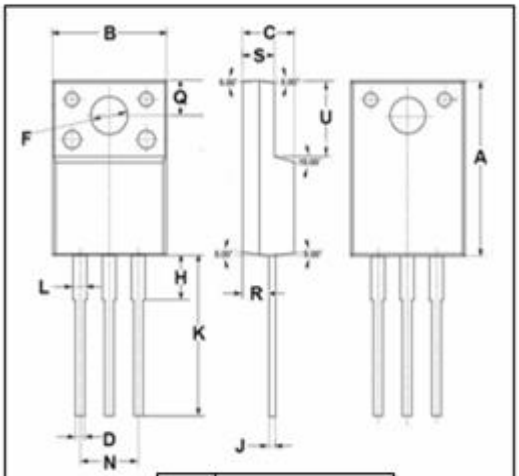


• **ABSOLUTE MAXIMUM RATINGS(T_a=25℃)**

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	650	V
V_{GS}	Gate-Source Voltage	±30	V
I_D	Drain Current-Continuous	5.1	A
I_{DM}	Drain Current-Single Pulsed	21	A
P_D	Total Dissipation @T_C=25℃	60	W
T_j	Max. Operating Junction Temperature	-55~150	℃
T_{stg}	Storage Temperature	-55~150	℃

• **THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
Rth(ch-c)	Channel-to-case thermal resistance	2.1	℃/W



DIM	mm MIN	MAX
A	14.95	15.05
B	10.00	10.10
C	4.40	4.60
D	0.75	0.90
F	3.10	3.30
H	3.70	3.90
J	0.50	0.70
K	13.4	13.6
L	1.10	1.30
N	5.00	5.20
Q	2.70	2.90
R	2.20	2.40
S	2.65	2.90
U	6.40	6.60

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV_{DSS}	Drain-Source Breakdown Voltage	V_{GS}=0V; I_D= 0.25mA	650			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}= 10V; I_D=0.25mA	2.0		4.0	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}=10V; I_D=3.1A			0.93	Ω
I_{GSS}	Gate-Source Leakage Current	V_{GS}= ±30V;V_{DS}= 0V			±100	nA
I_{DSS}	Drain-Source Leakage Current	V_{DS}=650V; V_{GS}= 0V V_{DS}=520V; V_{GS}= 0V;T_J=125℃			25 250	μA
V_{SDF}	Diode forward voltage	I_{DR} =5.2A, V_{GS} = 0 V			1.5	V