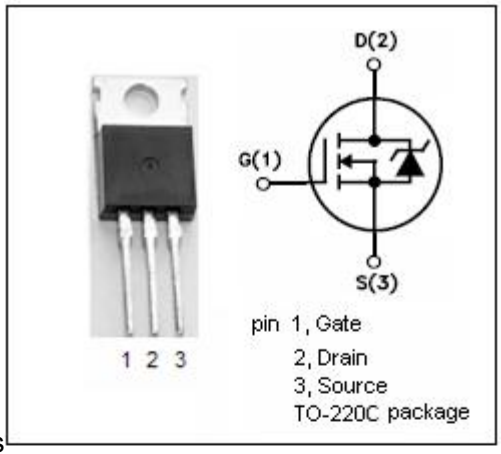
isc N-Channel Mosfet Transistor BUZ71A



• FEATURES

- Low $R_{DS(on)}$
- V_{GS} Rated at ±20V
- Silicon Gate for Fast Switching Speed
- Rugged
- Low Drive Requirements
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• DESCRIPTION

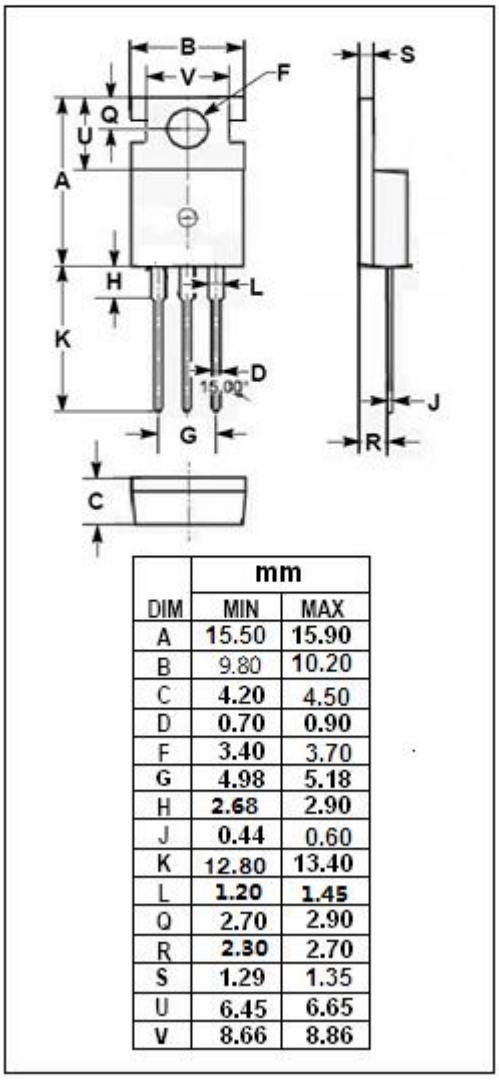
- Designed especially for applications such as switching regulators switching converters,motor drivers ,relay drivers.

• ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	50	V
V_{GS}	Gate-Source Voltage-Continuous	±20	V
I_D	Drain Current-Continuous	13	A
I_{DM}	Drain Current-Single Plused	48	A
P_D	Total Dissipation @T_C=25℃	40	W
T_j	Max. Operating Junction Temperature	-55~150	℃
T_{stg}	Storage Temperature	-55~150	℃

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	3.1	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance,Junction to Ambient	75	℃/W



DIM	mm MIN	mm MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}= 0; I_D= 0.25mA	50		V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}= V_{GS}; I_D= 1mA	2.1	4	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 10V; I_D= 9A		0.12	Ω
I_{GSS}	Gate-Body Leakage Current	V_{GS}= ±20V;V_{DS}= 0		±100	nA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}=50V; V_{GS}=0		250	uA
V_{SD}	Forward On-Voltage	I_S= 26A; V_{GS}=0		2.2	V
Gfs	Forward Transconductance	V_{DS}= 25V； I_D=9A	3.0		

• Switching Times

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
Td(on)	Turn-on Delay Time	V_{DD}=30V,I_D=3A V_{GS}=10V R_{GS}=50Ω		30	ns
Tr	Rise Time			85	ns
Td(off)	Turn-off Delay Time			90	ns
Tf	Fall Time			110	ns