

isc N-Channel MOSFET Transistor

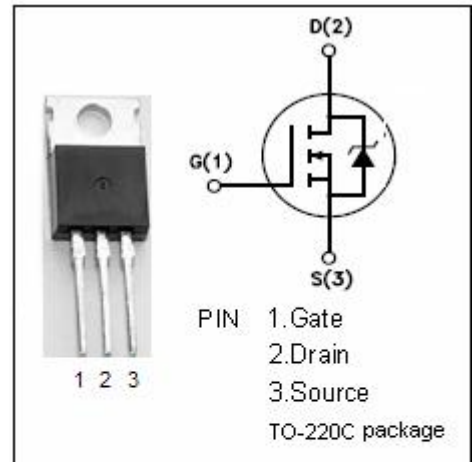
BUZ31

DESCRIPTION

- Static Drain-Source On-Resistance
: $R_{DS(on)} = 0.2 \Omega$ (Max)
- High current capability
- 175°C operating temperature

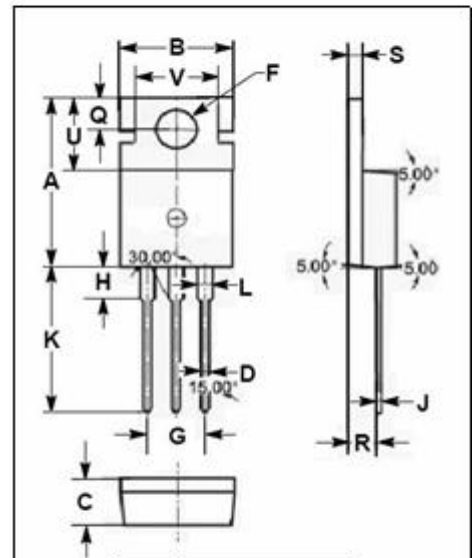
APPLICATIONS

- High current , high speed switching
- Solenoid and relay drivers
- DC-DC & DC-AC converters



ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS}=0$)	200	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-continuous@ $TC=37^\circ\text{C}$	14.5	A
P_{tot}	Total Dissipation@ $TC=25^\circ\text{C}$	95	W
T_j	Max. Operating Junction Temperature	-55~150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



DIM	mm	
	MIN	MAX
A	15.70	15.90
B	9.90	10.10
C	4.20	4.40
D	0.70	0.90
F	3.40	3.60
G	4.98	5.18
H	2.70	2.90
J	0.44	0.46
K	13.20	13.40
L	1.10	1.30
Q	2.70	2.90
R	2.50	2.70
S	1.29	1.31
U	6.45	6.65
V	8.66	8.86

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	1.32	$^\circ\text{C/W}$
$R_{th j-a}$	Thermal Resistance, Junction to Ambient	75	$^\circ\text{C/W}$

isc N-Channel Mosfet Transistor**BUZ31****• ELECTRICAL CHARACTERISTICS (T_C=25°C)**

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D = 0.25mA	200		V
V _{GS(TH)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D = 1mA	2.1	4	V
R _{DS(ON)}	Drain-Source On-stage Resistance	V _{GS} = 10V; I _D = 9A		0.2	Ω
I _{GSS}	Gate Source Leakage Current	V _{GS} = ±20V; V _{DS} = 0		±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 200V; V _{GS} = 0		1	uA
V _{SD}	Diode Forward Voltage	I _F = 29A; V _{GS} = 0		1.6	V