

isc N-Channel Mosfet Transistor

BUZ10

• FEATURES

- Drain Current $-I_D=23A@ T_C=25^{\circ}C$
- Static Drain-Source On-Resistance
: $R_{DS(on)} = 0.07 \Omega$ (Max)
- $175^{\circ}C$ operating temperature
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• DESCRIPTION

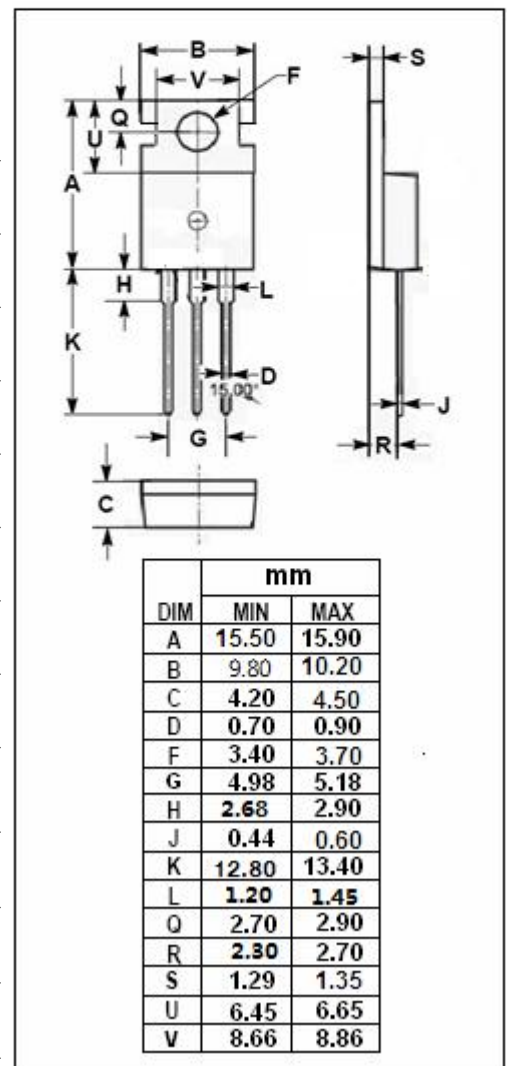
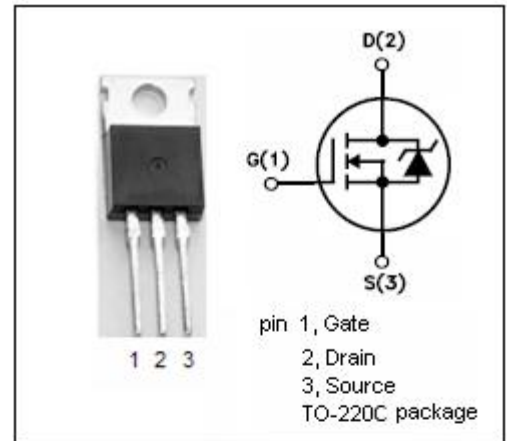
- High current , high speed switching
- Solenoid and relay drivers
- DC-DC & DC-AC converters

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

SYMBOL	ARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS}=0$)	50	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-continuous@ $T_C=25^{\circ}C$	23	A
I_{DM}	Drain Current-Single Plused	92	A
P_{tot}	Total Dissipation@ $T_C=25^{\circ}C$	75	W
T_j	Max. Operating Junction Temperature	175	$^{\circ}C$
T_{stg}	Storage Temperature Range	-65~175	$^{\circ}C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance,Junction to Case	2.0	$^{\circ}C/W$
$R_{th j-a}$	Thermal Resistance,Junction to Ambient	62.5	$^{\circ}C/W$



isc N-Channel Mosfet Transistor**BUZ10****ELECTRICAL CHARACTERISTICS****T_C=25°C 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-stage Resistance	V _{GS} = 10V; I _D = 14A		0.07	Ω
I _{GSS}	Gate Source Leakage Current	V _{GS} = ±20V; V _{DS} = 0		±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 50V; V _{GS} = 0		1	uA
V _{SD}	Diode Forward Voltage	I _F = 46A; V _{GS} = 0		1.9	V
Gfs	Forward Transconductance	V _{DS} = 25V; I _D =14A	6.0		S

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