

isc N-Channel MOSFET Transistor

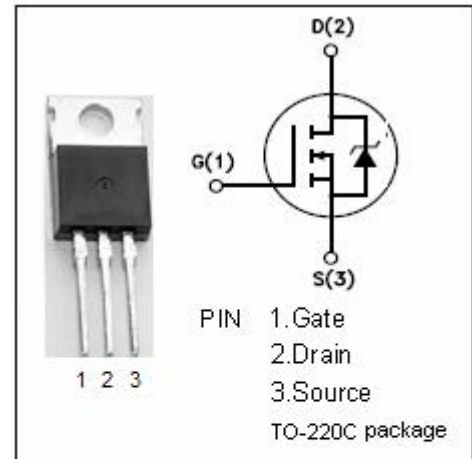
BUZ80FI

DESCRIPTION

- High speed switching
- Low  $R_{DS(ON)}$
- Easy driver for cost effective application

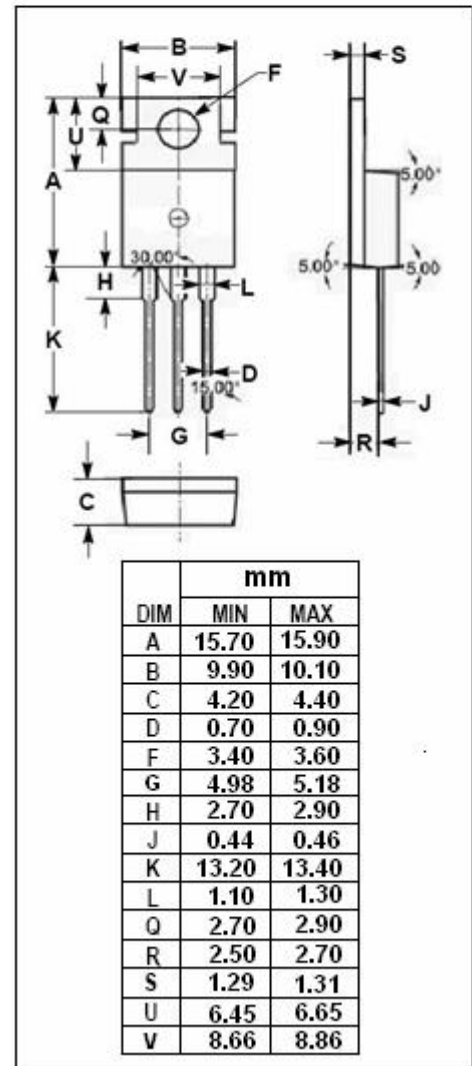
APPLICATIONS

- Automotive power actuator drivers
- Motor controls
- DC-DC converters



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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage ( $V_{GS}=0$ )	800	V
$V_{GS}$	Gate-Source Voltage	$\pm 20$	V
$I_D$	Drain Current-continuous@ $TC=37^{\circ}C$	2.1	A
$P_{tot}$	Total Dissipation@ $TC=25^{\circ}C$	40	W
$T_j$	Max. Operating Junction Temperature	150	$^{\circ}C$
$T_{stg}$	Storage Temperature Range	-65-150	$^{\circ}C$



THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance,Junction to Case	1.25	$^{\circ}C/W$
$R_{th j-a}$	Thermal Resistance,Junction to Ambient	62.5	$^{\circ}C/W$

**isc N-Channel Mosfet Transistor****BUZ80FI****• ELECTRICAL CHARACTERISTICS (T<sub>C</sub>=25°C)**

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V <sub>(BR)DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> = 0; I <sub>D</sub> = 0.25mA	800		V
V <sub>GS(TH)</sub>	Gate Threshold Voltage	V <sub>DS</sub> = V <sub>GS</sub> ; I <sub>D</sub> = 1mA	2.1	4	V
R <sub>DS(ON)</sub>	Drain-Source On-stage Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> = 1.7A		4	Ω
I <sub>GSS</sub>	Gate Source Leakage Current	V <sub>GS</sub> = ±20V; V <sub>DS</sub> = 0		±100	nA
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> = 800V; V <sub>GS</sub> = 0		25	uA
V <sub>SD</sub>	Diode Forward Voltage	I <sub>F</sub> = 6A; V <sub>GS</sub> = 0		2.5	V