

isc N-Channel MOSFET Transistor

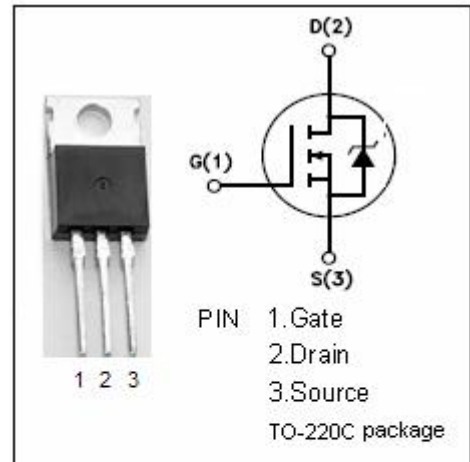
BUZ307

DESCRIPTION

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

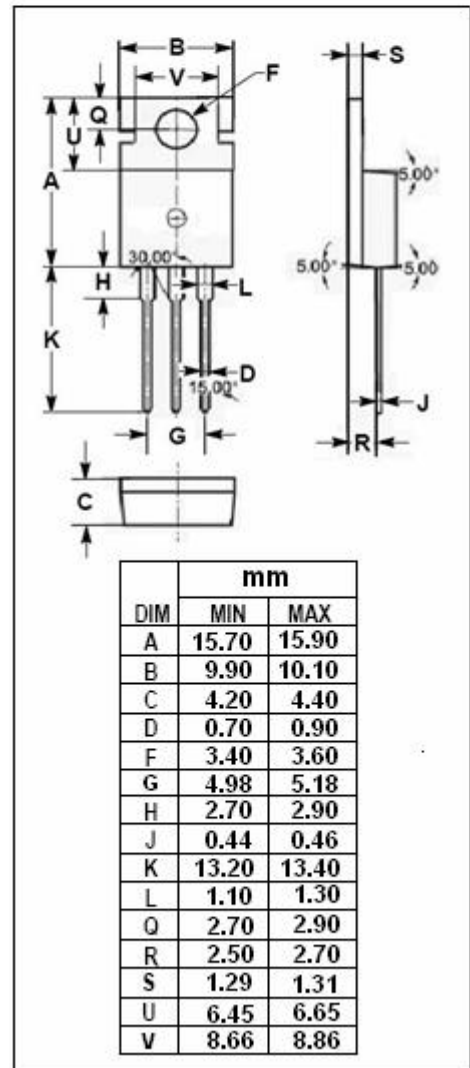
APPLICATIONS

- 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	± 20	V
I_D	Drain Current-continuous@ $TC=37^{\circ}C$	3	A
P_{tot}	Total Dissipation@ $TC=25^{\circ}C$	75	W
T_j	Max. Operating Junction Temperature	-55~150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}C$



THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.67	$^{\circ}C/W$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	75	$^{\circ}C/W$

isc N-Channel Mosfet Transistor**BUZ307****• 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	800		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 = 1.5A		3	Ω
I _{GSS}	Gate Source Leakage Current	V _{GS} =20V; V _{DS} = 0		100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 800V; V _{GS} = 0		1	uA
V _{SD}	Diode Forward Voltage	I _F = 6A; V _{GS} = 0		1.3	V