

isc N-Channel MOSFET Transistor

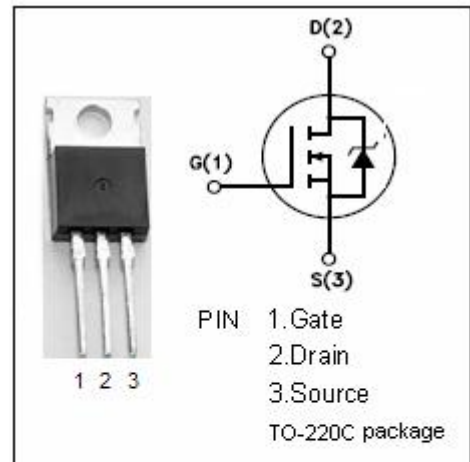
BUZ21

DESCRIPTION

- 19A, 100V
- RDS(ON) = 0.1 Ω
- SOA is Power Dissipation Limited
- Nanosecond Switching Speeds
- Linear Transfer Characteristics
- High Input Impedance
- Majority Carrier Device
- Related Literature

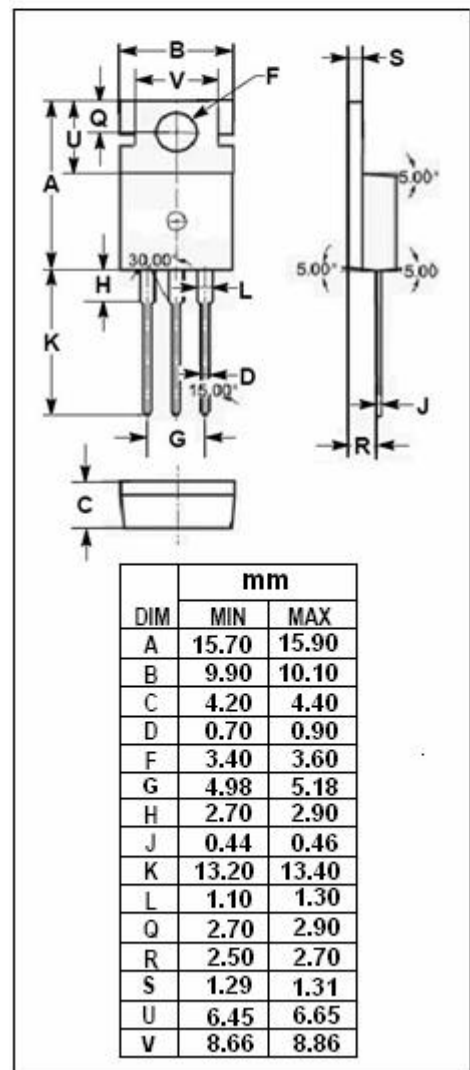
APPLICATIONS

• This is an N-Channel enhancement mode silicon gate power field effect transistor designed for applications such as switching regulators, switching converters, motor drivers, relay drivers, and drivers for high power bipolar switching transistors requiring high speed and low gate drive power. This type can be operated directly from integrated circuits.



ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{DSS}	Drain-Source Voltage (V _{GS} =0)	100	V
V _{GS}	Gate-Source Voltage	±20	V
I _D	Drain Current-continuous@ TC=37°C	19	A
P _{tot}	Total Dissipation@TC=25°C	75	W
T _j	Max. Operating Junction Temperature	-55~150	°C
T _{stg}	Storage Temperature Range	-55~150	°C



THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance,Junction to Case	1.67	°C/W
R _{th j-a}	Thermal Resistance,Junction to Ambient	75	°C/W

isc N-Channel Mosfet Transistor**BUZ21****• 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	100		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 = 9 A		0.1	Ω
I _{GSS}	Gate Source Leakage Current	V _{GS} = ±20V; V _{DS} = 0		±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 100V; V _{GS} = 0		250	uA
V _{SD}	Diode Forward Voltage	I _F = 38A; V _{GS} = 0		2.1	V