

isc N-Channel MOSFET Transistor

BUZ11A

DESCRIPTION

- Static Drain-Source On-Resistance
: $R_{DS(on)} = 0.045 \Omega$ (Max)
- Avalanche rugged technology
- High current capability
- 175°C Operating Temperature

APPLICATIONS

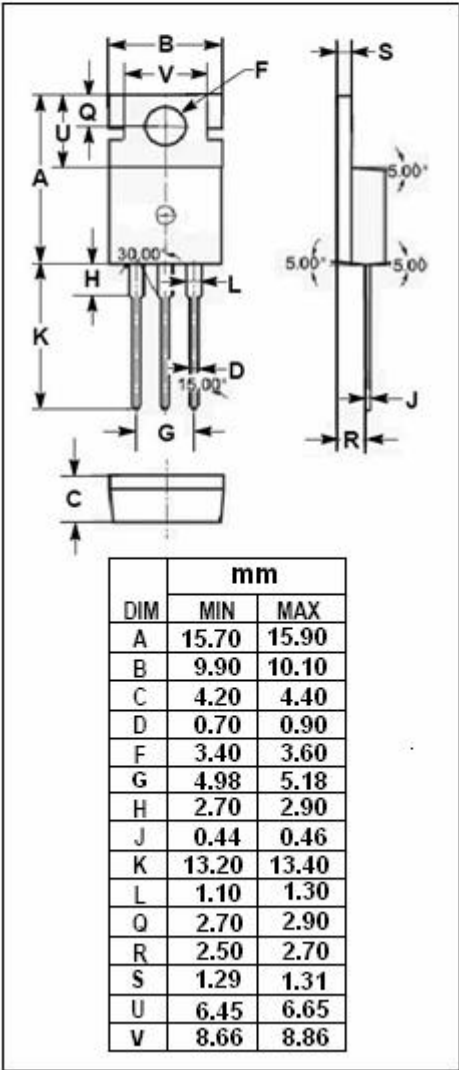
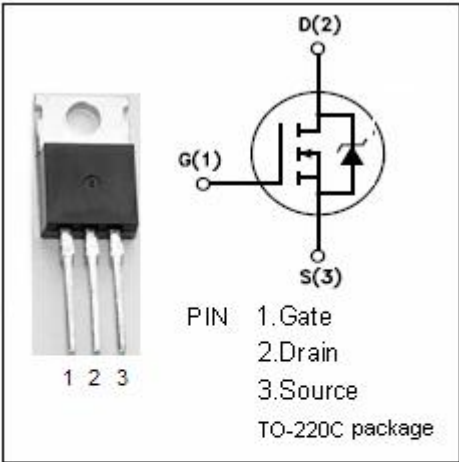
- High current,high speed switching
- Solenoid and relay drivers
- Regulators
- DC-DC & DC-AC converters

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

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@ $TC=37^{\circ}\text{C}$	26	A
P_{tot}	Total Dissipation@ $TC=25^{\circ}\text{C}$	75	W
T_j	Max. Operating Junction Temperature	-55~175	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55~175	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

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



isc N-Channel Mosfet Transistor**BUZ11A****• ELECTRICAL CHARACTERISTICS (T_C=25°C)**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	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 = 19A		0.045	0.055	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 = 60A; V _{GS} = 0			1.8	V
Td(on)	Turn-on Time	V _{DD} = 30 V I _D = 3A R _{GS} = 50 Ω V _{GS} = 10 V		15	25	ns
tr	Rise Time			55	85	ns
Td(off)	Turn-off Delay Time			120	160	ns
tf	Rise Time			80	110	ns