

isc N-Channel Mosfet Transistor

BUZ80FI

• FEATURES

- High speed switching
- Low $R_{DS(ON)}$
- Easy driver for cost effective application
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• DESCRIPTION

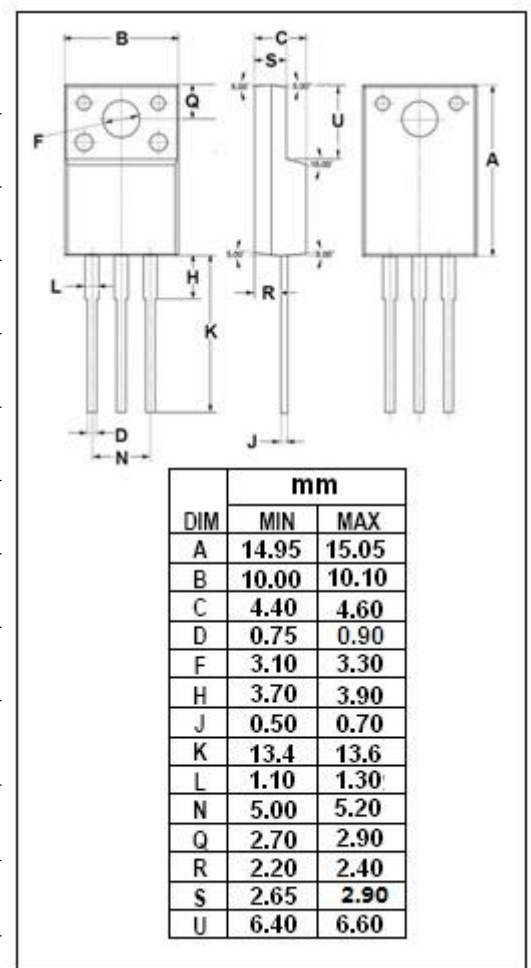
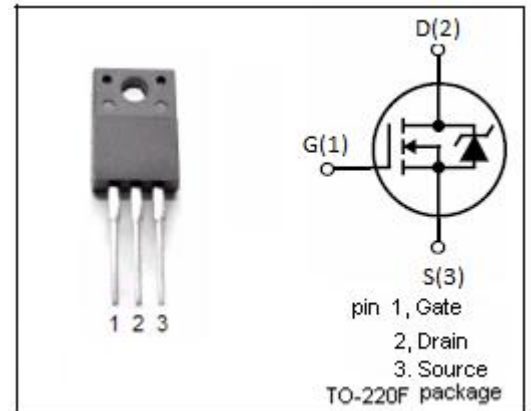
- High current , high speed switching
- Switching mode power supplies
- DC-DC & DC-AC converter

• 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@ $TC=25^{\circ}C$	2.1	A
I_{DM}	Drain Current-Single Pulsed	13	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	3.12	$^{\circ}C/W$
$R_{th\ j-a}$	Thermal Resistance,Junction to Ambient	62.5	$^{\circ}C/W$



isc N-Channel Mosfet Transistor**BUZ80FI****ELECTRICAL CHARACTERISTICS**T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	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	2.0		4.0	V
V _{SD}	Diode Forward On-voltage	I _S = 6A; V _{GS} = 0			2.5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D = 1.7A			4	Ω
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±20V; V _{DS} = 0			±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =800V; V _{GS} = 0			25	μA
G _{fs}	Forward Transconductance	V _{DS} = 25V; I _D =1.7A	1			S

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