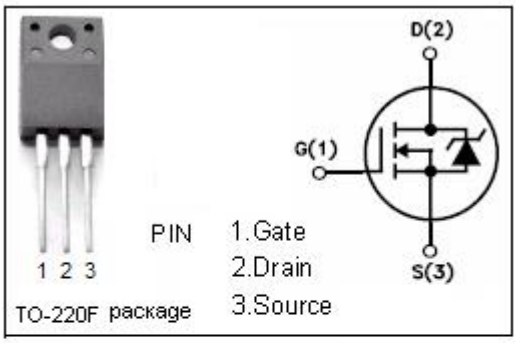
isc N-Channel MOSFET Transistor BUK444-200A/B

DESCRIPTION

- Drain Source Voltage-
  : V_{DSS}=200V(Min)
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

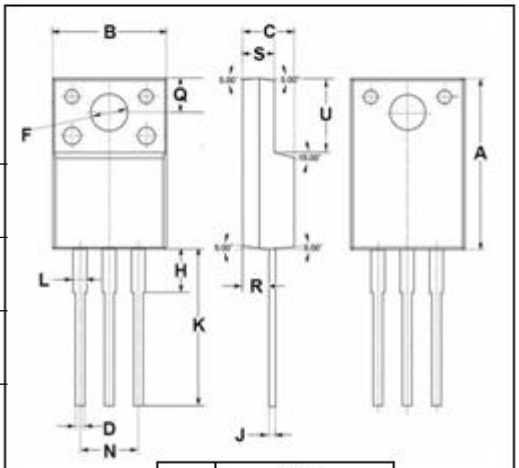
- Designed for Switched Mode Power Supplies (SMPS), motor control,welding, And in general purpose switching resistance application

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	ARAMETER		VALUE	UNIT
V_{DSS}	Drain-Source Voltage (V_{GS}=0)		200	V
V_{GS}	Gate-Source Voltage		±30	V
I_D	Drain Current-continuous @ TC=25℃	BUK444-200A	5.3	A
		BUK444-200B	4.7	
P_{tot}	Total Dissipation@TC=25℃		25	W
T_j	Max. Operating Junction Temperature		150	℃
T_{stg}	Storage Temperature Range		150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	5	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance,Junction to Ambient	55	℃/W



DIM	mm MIN	MAX
A	14.95	15.05
B	10.00	10.10
C	4.40	4.60
D	0.75	0.80
F	3.10	3.30
H	3.70	3.90
J	0.50	0.70
K	13.4	13.6
L	1.10	1.30
N	5.00	5.20
Q	2.70	2.90
R	2.20	2.40
S	2.65	2.85
U	6.40	6.60

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• **ELECTRICAL CHARACTERISTICS (T_C=25℃)**

SYMBOL	PARAMETER	CONDITIONS		MIN	TYP	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}=0; I_D= 0.25mA		200			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}=V_{GS}; I_D=1mA		2.1		4.0	V
$R_{DS(on)}$	Drain-Source On-stage Resistance	V_{GS}=10V; I_D=3.5A	BUK444-200A			0.4	Ω
			BUK444-200B			0.5	Ω
I_{GSS}	Gate Source Leakage Current	V_{GS}= ±30V;V_{DS}= 0				±100	nA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}=200V; V_{GS}= 0				10	uA
V_{SD}	Diode Forward Voltage	I_F=5.3A; V_{GS}=0				1.3	V
Gfs	Forward Transconductance	V_{DS}= 25V； I_D= 3.5A		3.5			S
tr	Rise time	V_{GS}=10V;I_D=2.9A;R_{GS}=50Ω			45	70	ns
ton	Turn-on time				12	20	ns
tf	Fall time				40	60	ns
toff	Turn-off time				80	120	ns

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