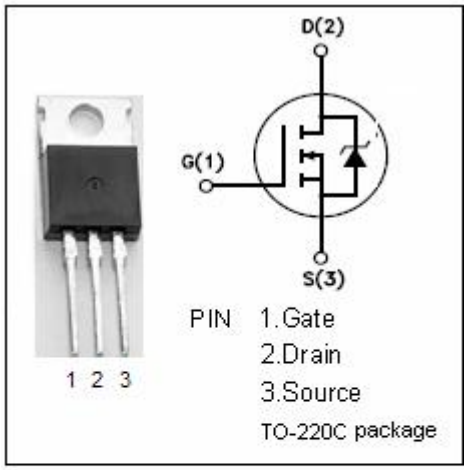
isc N-Channel MOSFET Transistor BUK453-100A/B



DESCRIPTION

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

APPLICATIONS

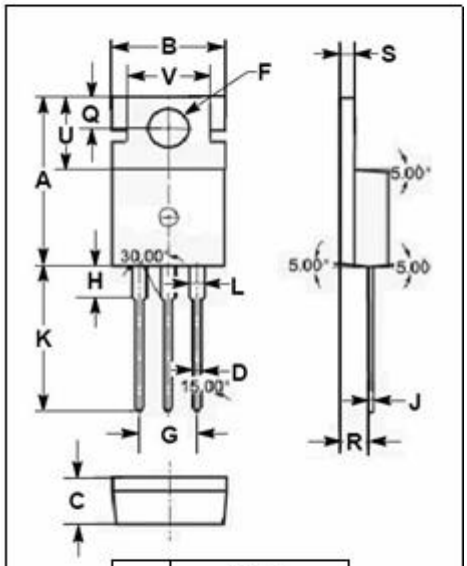
- use in Switched Mode Power Supplies (SMPS), motor control,welding, And in general purpose switching resistance application

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	ARAMETER		VALUE	UNIT
V_{DSS}	Drain-Source Voltage (V_{GS}=0)		100	V
V_{GS}	Gate-Source Voltage		±30	V
I_D	Drain Current-continuous@ TC=37℃	BUK453-100A	14	A
		BUK453-100B	13	
P_{tot}	Total Dissipation@TC=25℃		75	W
T_j	Max. Operating Junction Temperature		175	℃
T_{stg}	Storage Temperature Range		175	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	2.0	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance,Junction to Ambient	60	℃/W



DIM	mm MIN	MAX
A	15.70	15.90
B	9.90	10.10
C	4.20	4.40
D	0.70	0.90
F	3.40	3.60
G	4.98	5.18
H	2.70	2.90
J	0.44	0.46
K	13.20	13.40
L	1.10	1.30
Q	2.70	2.90
R	2.50	2.70
S	1.29	1.31
U	6.45	6.65
V	8.66	8.86

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

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= 5A	BUK453-100A		0.16	Ω
			BUK453-100B		0.2	
I_{GSS}	Gate Source Leakage Current	V_{GS}= ±30V;V_{DS}= 0			±100	nA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}= 100V;V_{GS}= 0			10	uA
V_{SD}	Diode Forward Voltage	I_F= 14A;V_{GS}= 0			1.5	V