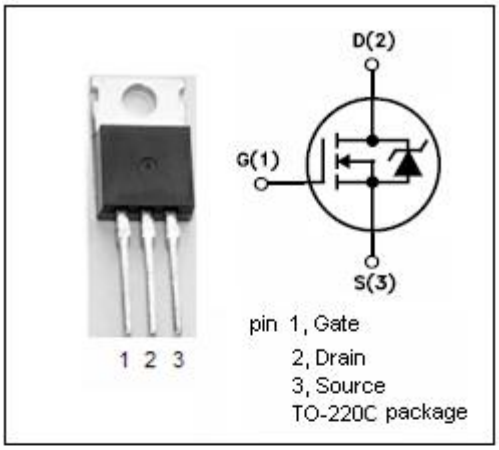
isc N-Channel Mosfet Transistor BUZ93



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

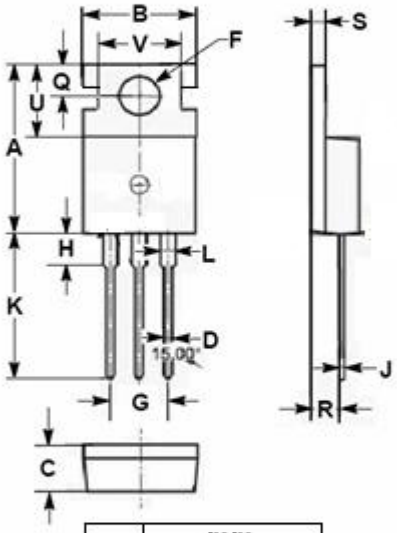
- **DESCRIPTION**
- Automotive power actuator drivers
- Motor controls
- DC-DC converters

- **ABSOLUTE MAXIMUM RATINGS(T_a=25℃)**

SYMBOL	ARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage (V_{GS}=0)	600	V
V_{GS}	Gate-Source Voltage	±20	V
I_D	Drain Current-continuous@ TC=25℃	3.6	A
I_{DM}	Drain Current-Single Plused	14.5	A
P_{tot}	Total Dissipation@TC=25℃	80	W
T_j	Max. Operating Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1.56	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance,Junction to Ambient	75	℃/W



DIM	mm MIN	MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}= 0; I_D=0.25mA	600			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}= V_{GS}; I_D=1mA	2.1		4.0	V
V_{SD}	Diode Forward On-voltage	I_S= 6.6A ;V_{GS}= 0			1.4	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 10V; I_D= 2A			2.5	Ω
I_{GSS}	Gate-Body Leakage Current	V_{GS}= ±20V;V_{DS}= 0			±100	nA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}=600V; V_{GS}= 0			1	μA
Gfs	Forward Transconductance	V_{DS}= 25V； I_D=2A	2.1			S
$t_{d(on)}$	Turn-on Delay Time	V_{GS}=10V; I_D=2.3A; V_{DD}=30V; R_{GS}=50Ω			15	ns
t_r	Rise Time				70	
$t_{d(off)}$	Turn-off Delay Time				95	
t_f	Fall Time				55	

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