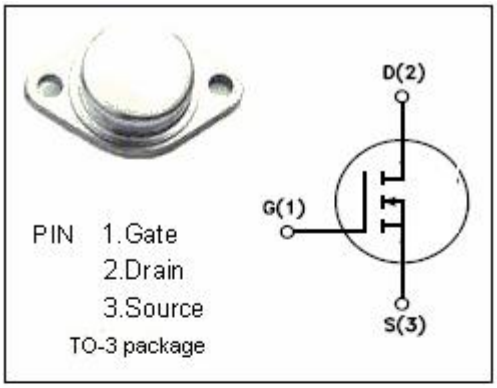
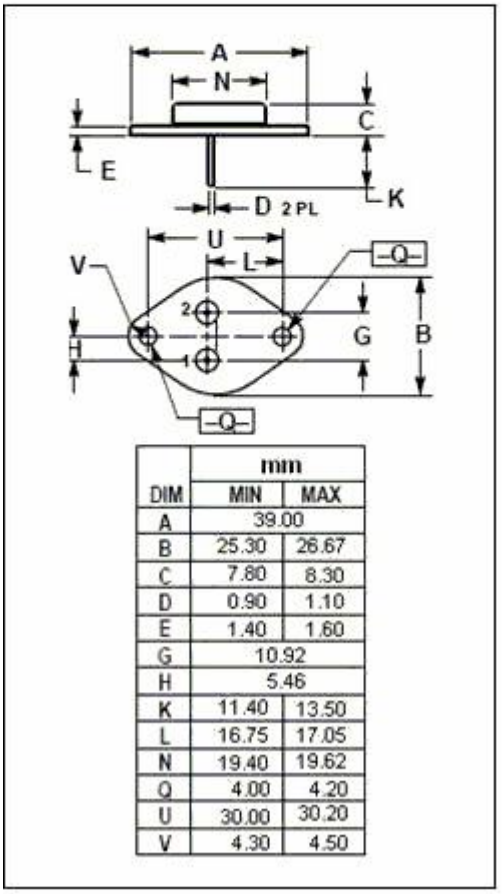
isc N-Channel Mosfet Transistor BUZ63

- **FEATURES**
- 5.9A, 400V
- SOA is Power Dissipation Limited
- Nanosecond Switching Speeds
- Linear Transfer Characteristics
- High Input Impedance
- Majority Carrier Device
- Minimum Lot-to-Lot variations for robust device performance and reliable operation
- **DESCRIPTION**

Designed for applications such as switching regulators, switching converters, motor drivers,relay drivers and drivers for high power bipolar switching transistors requiring high speed and low gate drive power.





DIM	mm MIN	MAX
A	39.00	
B	25.30	26.67
C	7.80	8.30
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.40	13.50
L	16.75	17.05
N	19.40	19.62
Q	4.00	4.20
U	30.00	30.20
V	4.30	4.50

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

SYMBOL	ARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage (V_{GS}=0)	400	V
V_{GS}	Gate-Source Voltage	±20	V
I_D	Drain Current-continuous@ TC=25℃	5.9	A
I_{DM}	Drain Current-Single Plused	23	A
P_{tot}	Total Dissipation@TC=25℃	78	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	1.6	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance,Junction to Ambient	35	℃/W

isc N-Channel Mosfet Transistor BUZ63

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	400			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= 11.8A ;V_{GS}= 0			1.65	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 10V; I_D= 2.5A			1.0	Ω
I_{GSS}	Gate-Body Leakage Current	V_{GS}= ±20V;V_{DS}= 0			±100	nA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}=400V; V_{GS}= 0			250	μA
Gfs	Forward Transconductance	V_{DS}= 25V； I_D=2.5A	1.7			S
$t_{d(on)}$	Turn-on Delay Time	V_{GS}=10V; I_D=2.7A; V_{DD}=30V; R_{GS}=50Ω			45	ns
t_r	Rise Time				60	
$t_{d(off)}$	Turn-off Delay Time				140	
t_f	Fall Time				65	