

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

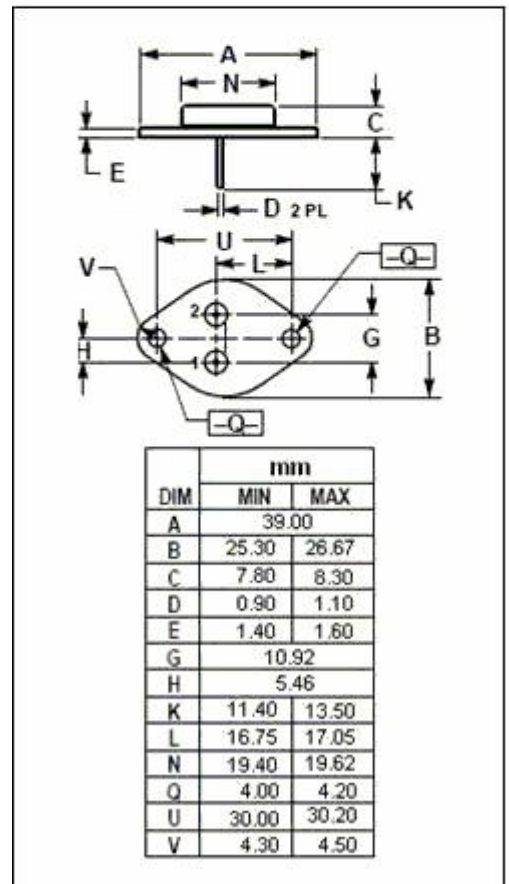
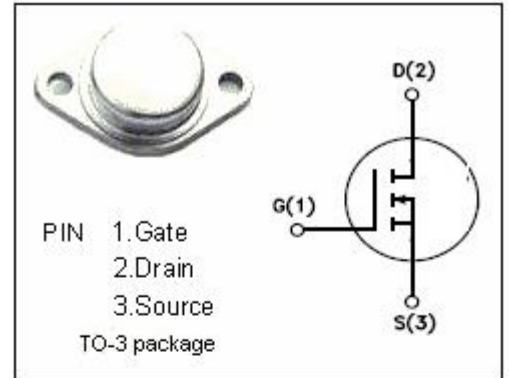
Designed for applications such as switching regulators, switching converters, motor drivers, relay drivers and drivers for high power bipolar switching transistors requiring high speed and low gate drive power.

• ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	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°C	5.9	A
I _{DM}	Drain Current-Single Pulsed	23	A
P _{tot}	Total Dissipation@TC=25°C	78	W
T _j	Max. Operating Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-55~150	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	1.6	°C/W
R _{th j-a}	Thermal Resistance, Junction to Ambient	35	°C/W



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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	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
G _{fs}	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} =50 Ω			45	ns
t _r	Rise Time				60	
t _{d(off)}	Turn-off Delay Time				140	
t _f	Fall Time				65	

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