

isc N-Channel Mosfet Transistor

75N10

• FEATURES

- Drain Current $I_D = 75A @ T_C = 25^\circ C$
- Drain Source Voltage-
: $V_{DSS} = 100V(\text{Min})$
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

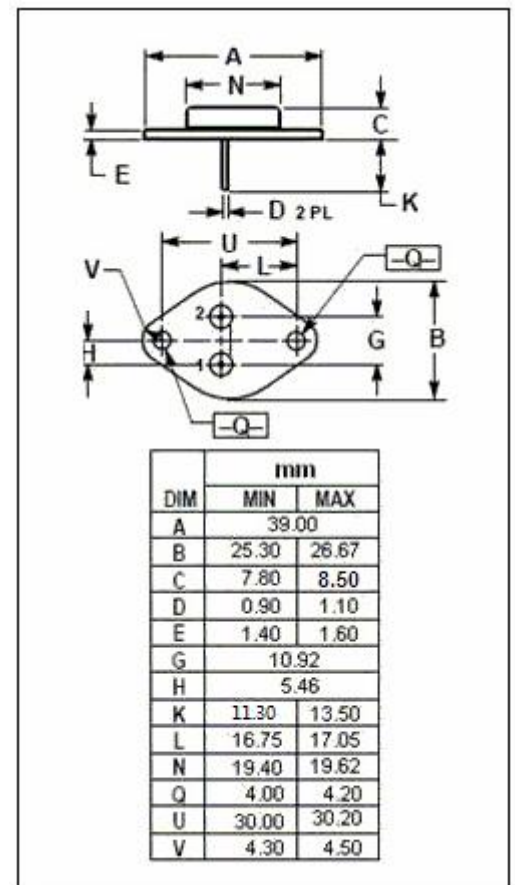
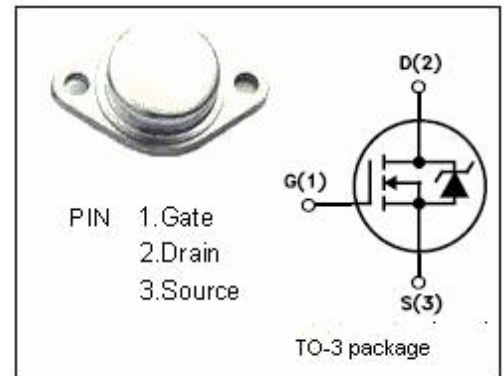
- Switching mode power supplies
- General purpose power amplifier

• ABSOLUTE MAXIMUM RATINGS($T_a = 25^\circ C$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS} = 0$)	100	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-continuous@ $T_C = 25^\circ C$	75	A
$I_{D(puls)}$	Pulse Drain Current	300	A
P_{tot}	Total Dissipation@ $T_C = 25^\circ C$	300	W
T_j	Max. Operating Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	0.42	$^\circ C/W$



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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 =250μA	100			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D =250μA	2.0		4.0	V
V _{SD}	Diode Forward On-Voltage	I _S =75A; V _{GS} = 0			1.75	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D =40A			0.02	Ω
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±20V; V _{DS} = 0			±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =80V; V _{GS} = 0			250	μA
t _r	Rise Time	V _{GS} =10V; I _D =40A; V _{DD} =40V; R _G =2 Ω			110	ns
t _{d(on)}	Turn-on Delay Time				30	
t _f	Fall Time				90	
t _{d(off)}	Turn-off Delay Time				110	

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