

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

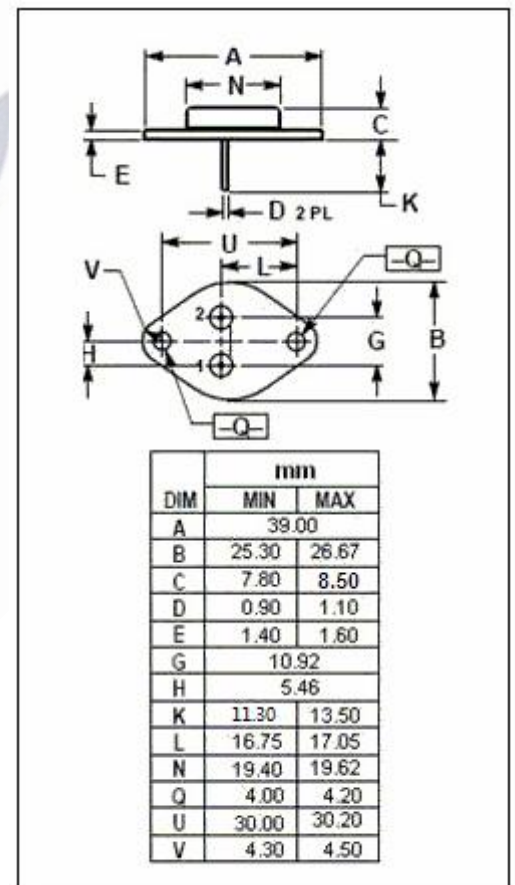
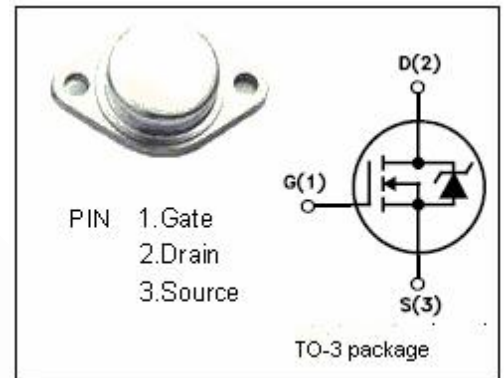
- Switching mode power supplies
- General purpose power amplifier

• 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
$I_{D(\text{puls})}$	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
$R_{\text{th j-c}}$	Thermal Resistance, Junction to Case	0.42	$^\circ C/W$



isc N-Channel Mosfet Transistor**75N10****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0; I_D=250\mu\text{A}$	100			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}; I_D=250\mu\text{A}$	2.0		4.0	V
V_{SD}	Diode Forward On-Voltage	$I_S=75\text{A}; V_{GS}=0$			1.75	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}; I_D=40\text{A}$			0.02	Ω
I_{GSS}	Gate-Body Leakage Current	$V_{GS}= \pm 20\text{V}; V_{DS}=0$			± 100	nA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=80\text{V}; V_{GS}=0$			250	μA
t_r	Rise Time	$V_{GS}=10\text{V};$ $I_D=40\text{A};$ $V_{DD}=40\text{V};$ $R_G=2\ \Omega$			110	ns
$t_{d(on)}$	Turn-on Delay Time				30	
t_f	Fall Time				90	
$t_{d(off)}$	Turn-off Delay Time				110	