

isc N-Channel MOSFET Transistor

3N80

• FEATURES

- Drain Current $I_D=3.0A@ T_C=25^{\circ}C$
- Drain Source Voltage-
: $V_{DSS}= 800V(\text{Min})$
- Static Drain-Source On-Resistance
: $R_{DS(\text{on})} = 4.5 \Omega (\text{Max})$
- Fast Switching

• APPLICATIONS

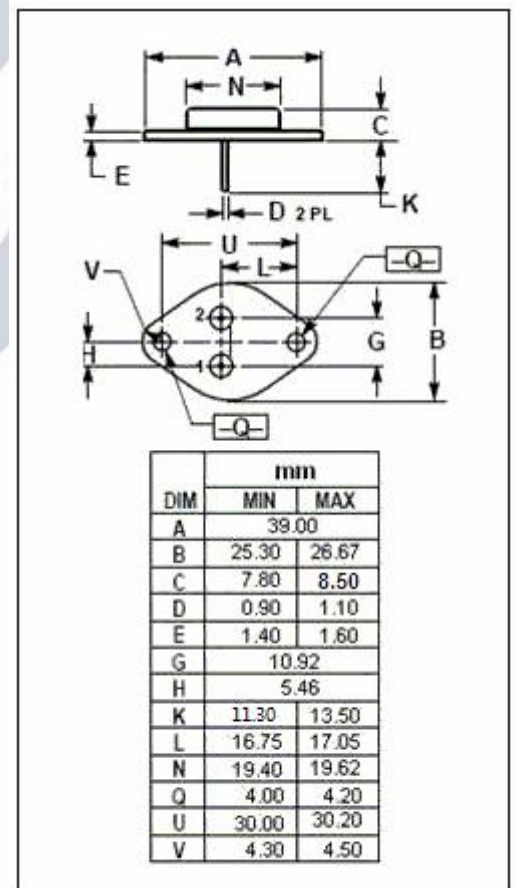
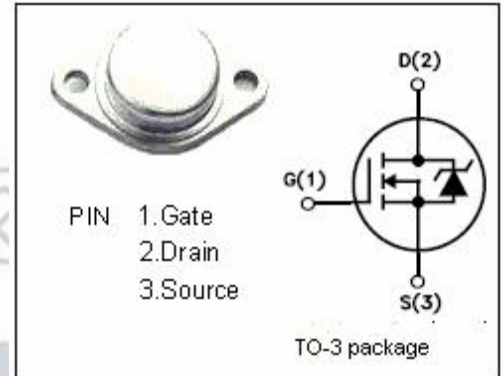
- Switching power supplies,converters,AC and DC motor controls

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	800	V
V_{GS}	Gate-Source Voltage-Continuous	± 30	V
I_D	Drain Current-Continuous	3	A
I_{DM}	Drain Current-Single Plused	12	A
P_D	Total Dissipation @ $T_C=25^{\circ}C$	75	W
T_j	Max. Operating Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature	-55~150	$^{\circ}C$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	1.67	$^{\circ}C/W$
$R_{th j-a}$	Thermal Resistance,Junction to Ambient	62.5	$^{\circ}C/W$



isc N-Channel MOSFET Transistor**3N80****• 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	$V_{GS}=0; I_D=250\mu\text{A}$	800			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}; I_D=1\text{mA}$	2.0		4.5	V
V_{SD}	Diode Forward On-voltage	$I_S=3\text{A}; V_{GS}=0$			1.4	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}; I_D=1.5\text{A}$			4.5	Ω
I_{GSS}	Gate-Body Leakage Current	$V_{GS}=\pm 30\text{V}; V_{DS}=0$			± 100	nA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=800\text{V}; V_{GS}=0$			1	μA
t_r	Rise Time	$V_{GS}=10\text{V};$ $I_D=3\text{A};$ $V_{DD}=400\text{V};$ $R_L=25\Omega$			80	ns
$t_{d(on)}$	Turn-on Delay Time				40	
t_f	Fall Time				75	
$t_{d(off)}$	Turn-off Delay Time				100	