

isc N-Channel MOSFET Transistor

2N80

FEATURES

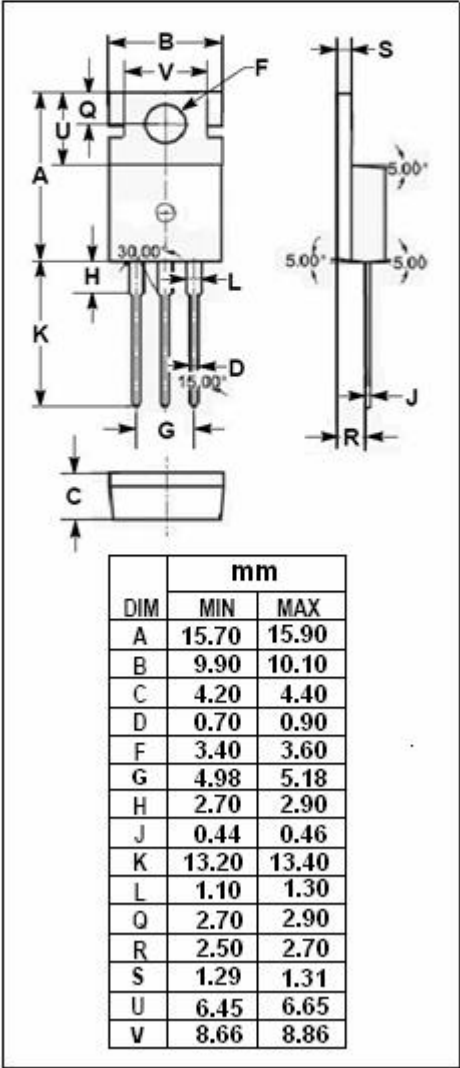
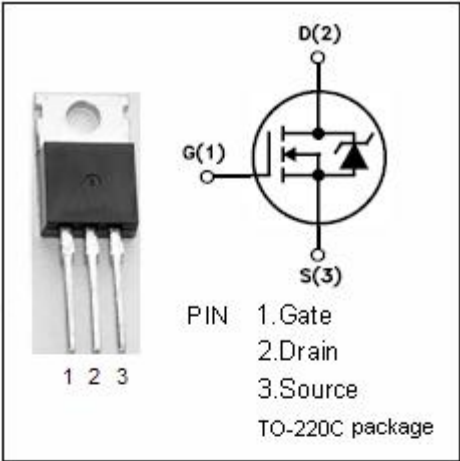
- Drain Current $I_D = 2.4A @ T_C = 25^{\circ}C$
 - Drain Source Voltage-
: $V_{DSS} = 800V (Min)$
 - Static Drain-Source On-Resistance
: $R_{DS(on)} = 7.0 \Omega (Max)$
 - Fast Switching
- APPLICATIONS
- Switching power supplies, converters, AC and DC motor controls

ABSOLUTE MAXIMUM RATINGS(T_a=25°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	2.4	A
I _{DM}	Drain Current-Single Plused	9.6	A
P _D	Total Dissipation @T _C =25°C	90	W
T _j	Max. Operating Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~150	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	5.2	°C/W
R _{th j-a}	Thermal Resistance, Junction to Ambient	62.5	°C/W



isc N-Channel MOSFET Transistor**2N80****• 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	$V_{DS}=V_{GS}; I_D=250\mu\text{A}$	2.0		4.0	V
V_{SD}	Diode Forward On-voltage	$I_S=2.4\text{A}; V_{GS}=0$			1.4	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}; I_D=1\text{A}$			7.0	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	$V_{DS}=800\text{V}; V_{GS}=0$			10	μA
C_{iss}	Input Capacitance	$V_{DS}=25\text{V};$ $V_{GS}=0\text{V};$ $f_T=1\text{MHz}$		425	550	pF
C_{rss}	Reverse Transfer capacitance			5.5	7	
C_{oss}	Output Capacitance			45	60	
t_r	Rise Time	$V_{GS}=10\text{V};$ $I_D=2.4\text{A};$ $V_{DD}=400\text{V};$ $R_L=25\Omega$		30	70	ns
$t_{d(on)}$	Turn-on Delay Time			12	35	
t_f	Fall Time			28	65	
$t_{d(off)}$	Turn-off Delay Time			25	60	