isc N-Channel MOSFET Transistor   2N80
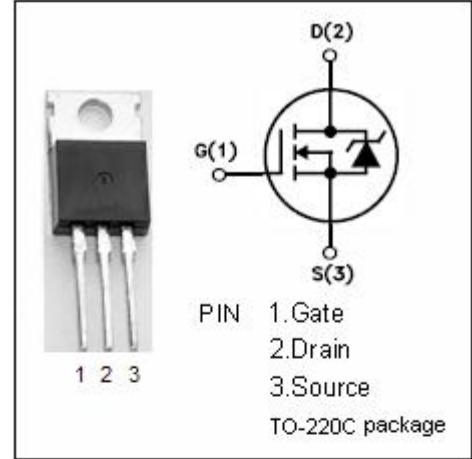
- **FEATURES**
- Drain Current I_D= 2.4A @ T_C=25℃
- Drain Source Voltage-
  : V_{DSS}= 800V(Min)
- Static Drain-Source On-Resistance
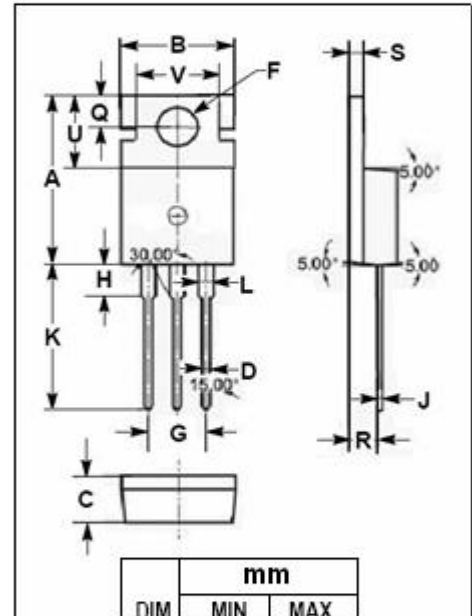 : $R_{DS(on)}$ = 7.0 Ω (Max)
- Fast Switching

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

- **ABSOLUTE MAXIMUM RATINGS(T_a=25℃)**

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℃	90	W
T_j	Max. Operating Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃

- **THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	5.2	℃/W
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	62.5	℃/W

PIN   1.Gate   2.Drain   3.Source
TO-220C package

DIM	mm MIN	mm MAX
A	15.70	15.90
B	9.90	10.10
C	4.20	4.40
D	0.70	0.90
F	3.40	3.60
G	4.98	5.18
H	2.70	2.90
J	0.44	0.46
K	13.20	13.40
L	1.10	1.30
Q	2.70	2.90
R	2.50	2.70
S	1.29	1.31
U	6.45	6.65
V	8.66	8.86

isc N-Channel MOSFET Transistor   2N80

• **ELECTRICAL CHARACTERISTICS**

  T$_C$=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
V$_{(BR)DSS}$	Drain-Source Breakdown Voltage	V$_{GS}$= 0; I$_D$=250µA	800			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$_S$= 2.4A ;V$_{GS}$= 0			1.4	V
R$_{DS(on)}$	Drain-Source On-Resistance	V$_{GS}$= 10V; I$_D$= 1A			7.0	Ω
I$_{GSS}$	Gate-Body Leakage Current	V$_{GS}$= ±30V;V$_{DS}$= 0			±100	nA
I$_{DSS}$	Zero Gate Voltage Drain Current	V$_{DS}$=800V; V$_{GS}$= 0			10	µA
C$_{iss}$	Input Capacitance	V$_{DS}$=25V; V$_{GS}$=0V; f$_T$=1MHz		425	550	pF
C$_{rss}$	Reverse Transfer capacitance			5.5	7	pF
C$_{oss}$	Output Capacitance			45	60	pF
t$_r$	Rise Time	V$_{GS}$=10V; I$_D$=2.4A; V$_{DD}$=400V; R$_L$=25 Ω		30	70	ns
t$_{d(on)}$	Turn-on Delay Time			12	35	ns
t$_f$	Fall Time			28	65	ns
t$_{d(off)}$	Turn-off Delay Time			25	60	ns

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