

isc N-Channel MOSFET Transistor

5NA80

DESCRIPTION

- Drain Current $I_D = 4.7A @ T_C = 25^\circ C$
- Drain Source Voltage
: $V_{DSS} = 800V(\text{Min})$
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

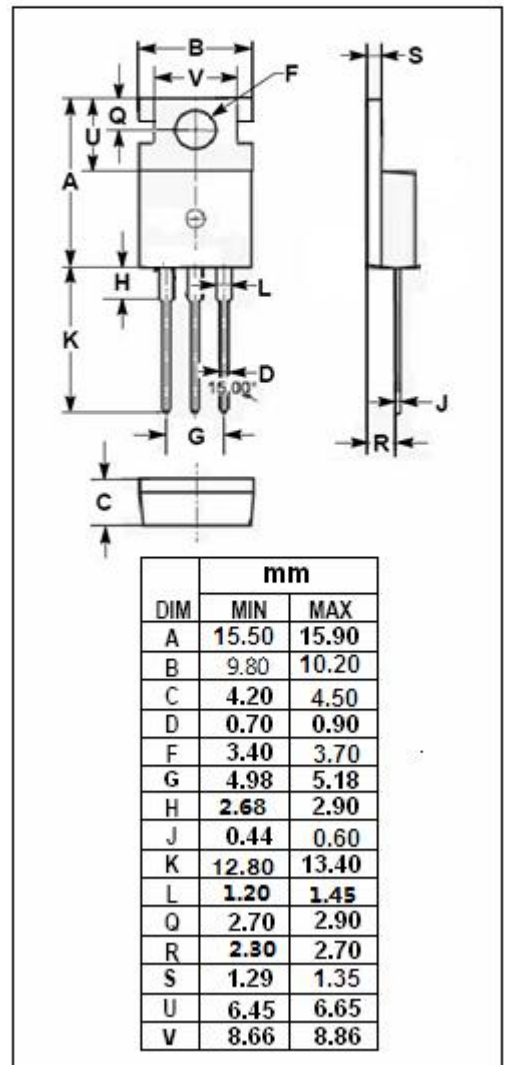
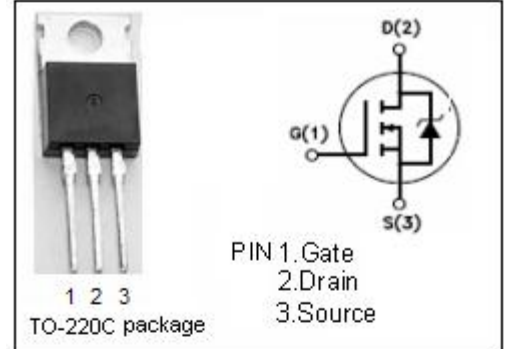
- High current ,high speed switching
- Switch mode power supplies
- DC-AC converters for welding equipment and uninterruptible power supplies and motor drive

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS} = 0$)	800	V
V_{GS}	Gate-Source Voltage	± 30	V
I_D	Drain Current-continuous@ $T_C = 25^\circ C$	4.7	A
P_{tot}	Total Dissipation@ $T_C = 25^\circ C$	125	W
T_j	Max. Operating Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-65~150	$^\circ C$

THERMAL CHARACTERISTICS

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



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• ELECTRICAL CHARACTERISTICS (T_c=25°C)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D = 0.25mA	800			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = 10V; I _D =0.25mA	2.25		3.75	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D = 2.5A			2.4	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			25	uA
C _{iss}	Input Capacitance	V _{DS} =25V;		1700		pF
C _{rss}	Reverse Transfer Capacitance	V _{GS} =0V; f _T =1MHz		190		
C _{oss}	Output Capacitance			50		

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