

isc N-Channel MOSFET Transistor

IRFP150MPBF

Features

- Drain Current $-I_D = 42A @ T_C = 25^\circ C$
- Drain Source Voltage-
: $V_{DS} = 100V (Min)$
- Static Drain-Source On-Resistance
: $R_{DS(on)} = 0.036 \Omega (Max)$
- Fast Switching
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

DESCRIPTION

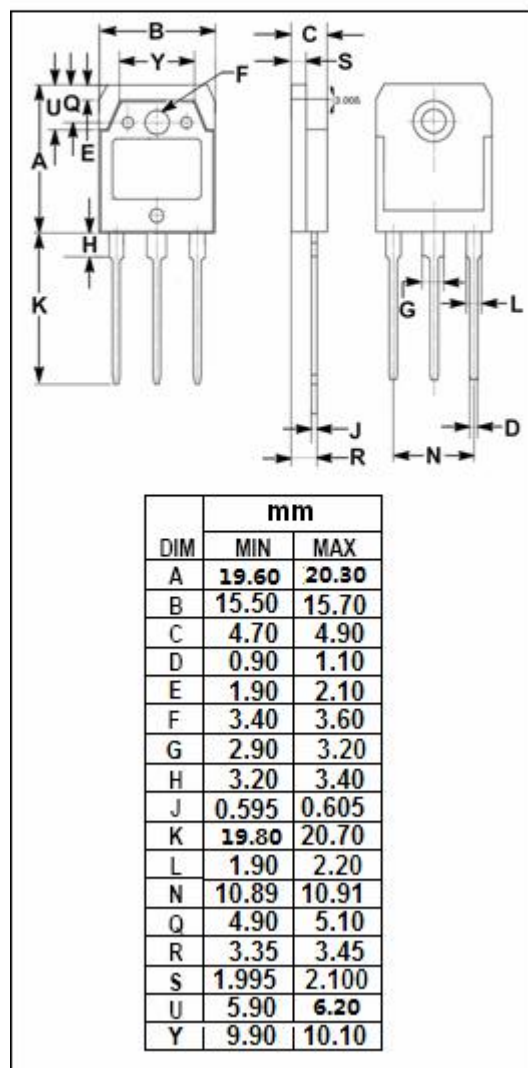
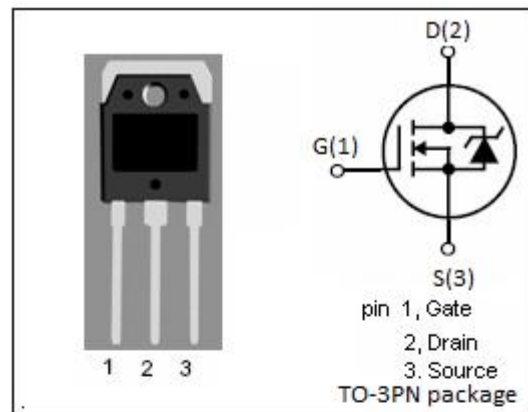
- Designed for use in switch mode power supplies and general purpose applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DS}	Drain-Source Voltage	100	V
V_{GS}	Gate-Source Voltage-Continuous	± 20	V
I_D	Drain Current-Continuous	42	A
I_{DM}	Drain Current-Single Pluse	140	A
P_D	Total Dissipation @ $T_C = 25^\circ C$	160	W
T_J	Max. Operating Junction Temperature	-55~175	$^\circ C$
T_{stg}	Storage Temperature	-55~175	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	0.95	$^\circ C/W$
$R_{th j-a}$	Thermal Resistance, Junction to Ambient	40	$^\circ C/W$



isc N-Channel MOSFET Transistor**IRFP150MPBF****ELECTRICAL CHARACTERISTICS****T_c=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D = 0.25mA	100		V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D = 0.25mA	2	4	V
R _{DS(on)*}	Drain-Source On-Resistance	V _{GS} = 10V; I _D = 23A		0.036	Ω
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±20V; V _{DS} = 0		±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 100V; V _{GS} = 0, T _c = 25°C		25	μ A
		V _{DS} = 80V; V _{GS} = 0, T _c = 150°C		250	μ A
V _{SD}	Forward On-Voltage	I _S = 23A; V _{GS} = 0		1.3	V

*Pulsed width≤300us,duty cycle≤2%

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