

isc N-Channel MOSFET Transistor

IRFP453R

FEATURES

- Drain Current – I_D = 12A@ T_C =25°C
- Drain Source Voltage-
: V_{DSS} = 450V(Min)
- Static Drain-Source On-Resistance
: $R_{DS(on)}$ = 0.5 Ω (Max)
- Fast Switching

DESCRIPTION

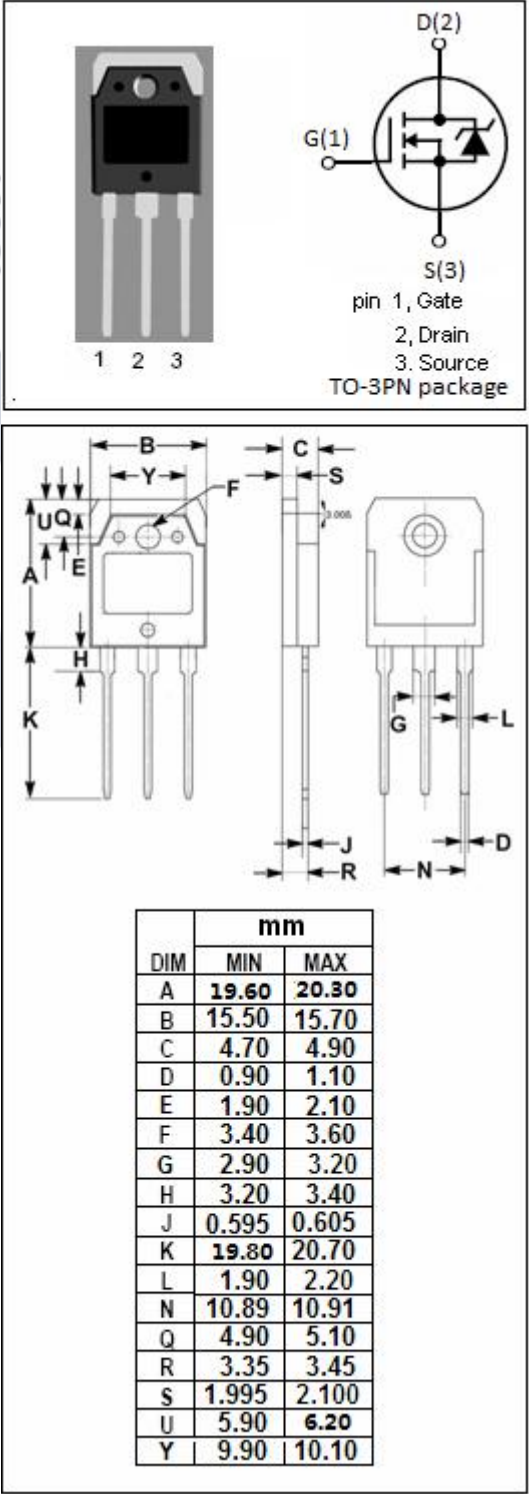
- Designed for use in switch mode power supplies and general purpose applications.

ABSOLUTE MAXIMUM RATINGS(T_a =25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	450	V
V_{GS}	Gate-Source Voltage-Continuous	± 20	V
I_D	Drain Current-Continuous	12	A
I_{DM}	Drain Current-Single Pluse	48	A
P_D	Total Dissipation @ T_C =25°C	150	W
T_J	Max. Operating Junction Temperature	-55~150	°C
T_{stg}	Storage Temperature	-55~150	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.83	°C/W
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	80	°C/W



isc N-Channel MOSFET Transistor**IRFP453R****ELECTRICAL CHARACTERISTICS** $T_c=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0$; $I_D=0.25\text{mA}$	450		V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}$; $I_D=0.25\text{mA}$	2	4	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}$; $I_D=7\text{A}$		0.5	Ω
I_{GSS}	Gate-Body Leakage Current	$V_{GS}=\pm 20\text{V}$; $V_{DS}=0$		± 100	nA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=450\text{V}$; $V_{GS}=0$ $V_{DS}=360\text{V}$; $V_{GS}=0$; $T_J=150^{\circ}\text{C}$		250 1000	μA
V_{SD}	Forward On-Voltage	$I_S=12\text{A}$; $V_{GS}=0$		1.3	V