

isc N-Channel MOSFET Transistor

IRFP4710, IIRFP4710

• FEATURES

- Static drain-source on-resistance:
 $R_{DS(on)} \leq 14m\Omega$
- Enhancement mode:
 $V_{th} = 3.5 \text{ to } 5.5 \text{ V}$ ($V_{DS}=V_{GS}$, $I_D=250 \mu\text{A}$)
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• DESCRIPTION

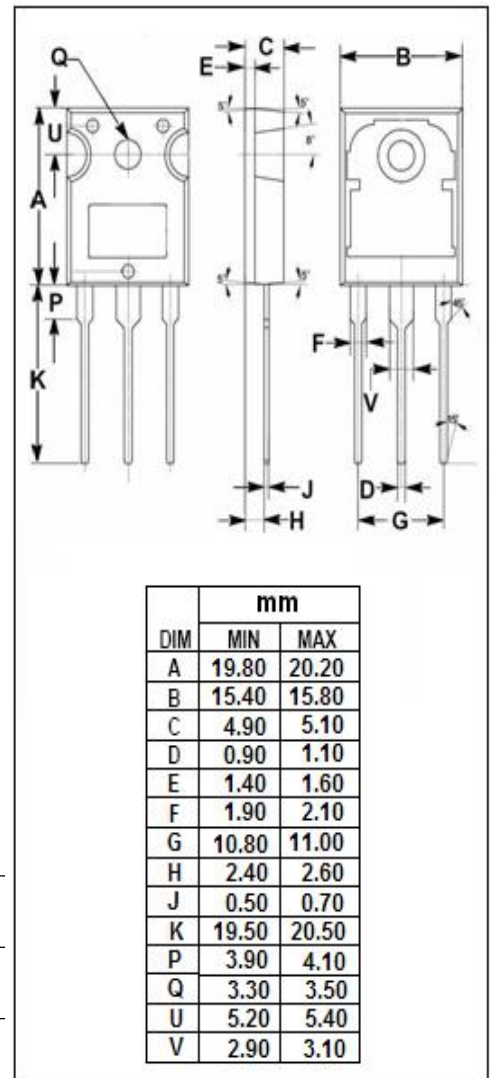
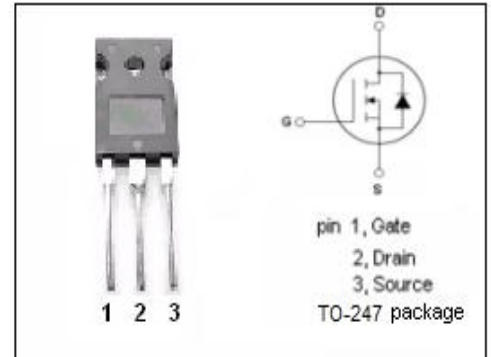
- High Frequency DC-DC Converters
- Uninterruptible Power Supply

• ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DS}	Drain-Source Voltage	100	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-Continuous	72	A
I_{DM}	Drain Current-Single Pulsed	300	A
P_D	Total Dissipation @ $T_c=25^\circ\text{C}$	190	W
T_j	Max. Operating Junction Temperature	175	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~175	$^\circ\text{C}$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(j-c)}$	Channel-to-case thermal resistance	0.81	$^\circ\text{C/W}$
$R_{th(j-a)}$	Channel-to-ambient thermal resistance	40	$^\circ\text{C/W}$



isc N-Channel MOSFET Transistor**IRFP4710, IIRFP4710****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV_{DSS}	Drain-Source Breakdown Voltage	$V_{GS}=0V$; $I_D=250\ \mu A$	100			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}$; $I_D=250\ \mu A$	3.5		5.5	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10V$; $I_D=45A$			14	$m\Omega$
I_{GSS}	Gate-Source Leakage Current	$V_{GS} = \pm 20V$			± 0.1	μA
I_{DSS}	Drain-Source Leakage Current	$V_{DS}=95V$; $V_{GS}=0V$			1.0	μA
V_{SD}	Diode forward voltage	$I_S=45A$, $V_{GS}=0V$			1.3	V

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