

## isc N-Channel MOSFET Transistor

## IXFH44N50P

## • FEATURES

- With TO-247 packaging
- With low gate drive requirements
- Low switching loss
- Low on-state resistance
- Easy to drive
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## • APPLICATIONS

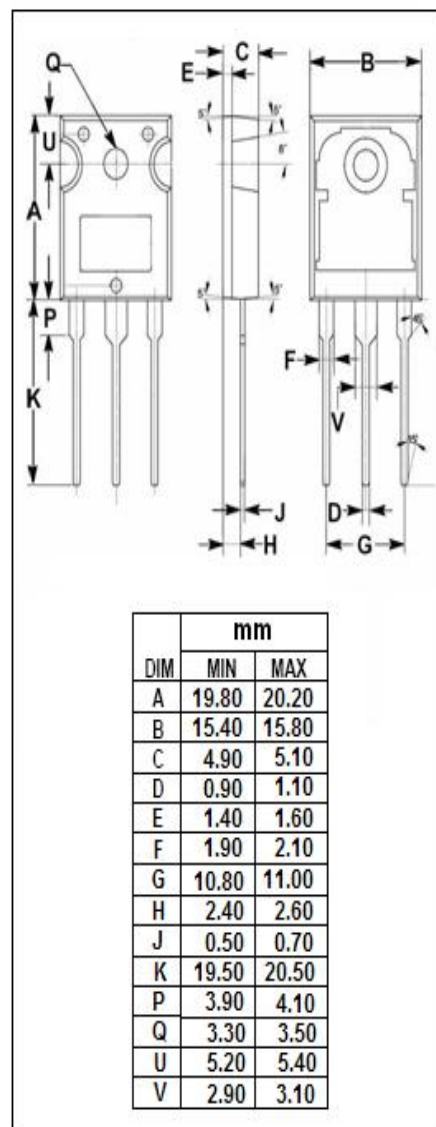
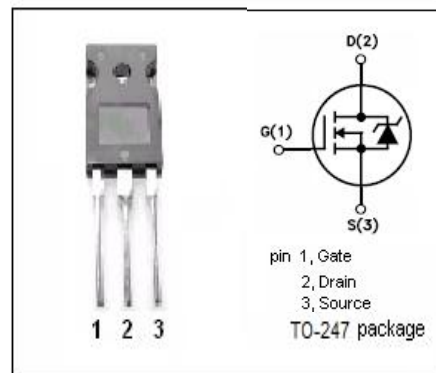
- Switching applications

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DS}$	Drain-Source Voltage	500	V
$V_{GS}$	Gate-Source Voltage	$\pm 30$	V
$I_D$	Drain Current-Continuous	44	A
$I_{DM}$	Drain Current-Single Pulsed	110	A
$P_D$	Total Dissipation	650	W
$T_j$	Operating Junction Temperature	-55~150	$^{\circ}\text{C}$
$T_{stg}$	Storage Temperature	-55~150	$^{\circ}\text{C}$

## • THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	0.19	$^{\circ}\text{C/W}$



**isc N-Channel MOSFET Transistor****IXFH44N50P****ELECTRICAL CHARACTERISTICS****T<sub>C</sub>=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0V; I <sub>D</sub> = 0.25mA	500			V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> =±30V; I <sub>D</sub> =4mA	3.0		5.0	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> =22A			140	mΩ
I <sub>GSS</sub>	Gate-Source Leakage Current	V <sub>GS</sub> = ±30V; V <sub>DS</sub> = 0V			±0.01	μA
I <sub>DSS</sub>	Drain-Source Leakage Current	V <sub>DS</sub> = 500V; V <sub>GS</sub> = 0V; @T <sub>C</sub> =25°C V <sub>DS</sub> = 500V; V <sub>GS</sub> = 0V; T <sub>C</sub> =125°C			25 500	μA
V <sub>SDF</sub>	Diode forward voltage	I <sub>SD</sub> =44A, V <sub>GS</sub> = 0V			1.5	V

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