

isc N-Channel MOSFET Transistor

IXFH20N85X

• FEATURES

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

• APPLICATIONS

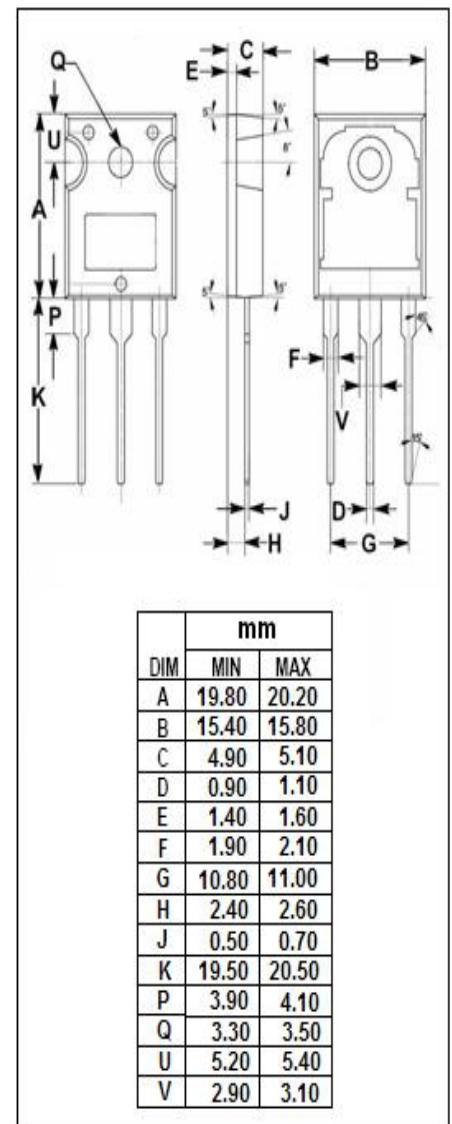
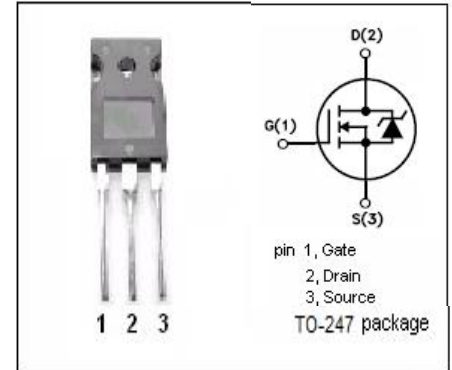
- Switching applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	850	V
V_{GSS}	Gate-Source Voltage	± 30	V
I_D	Drain Current-Continuous	20	A
I_{DM}	Drain Current-Single Pulsed	50	A
P_D	Total Dissipation	540	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	0.23	$^{\circ}\text{C/W}$



isc N-Channel MOSFET Transistor**IXFH20N85X****ELECTRICAL CHARACTERISTICS**T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V; I _D = 1mA	850			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =V _{GS} ; I _D =2.5mA	3.5		5.5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D =10A			330	mΩ
I _{GSS}	Gate-Source Leakage Current	V _{GS} = ±30V; V _{DS} = 0V			±0.1	μA
I _{DSS}	Drain-Source Leakage Current	V _{DS} = 650V; V _{GS} = 0V; @T _c =25°C T _c =125°C			25 1500	μA
V _{SDF}	Diode forward voltage	I _{SD} =20A, V _{GS} = 0 V			1.4	V

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