

INCHANGE SEMICONDUCTOR

isc N-Channel MOSFET Transistor

IXTQ170N10P

FEATURES

- Drain Current $I_D=170A@T_C=25$ °C
- Drain Source Voltage-
- : V_{DSS}= 100V(Min)
- Static Drain-Source On-Resistance : R_{DS(on)} = 0.009 Ω (Max)
- Fast Switching
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

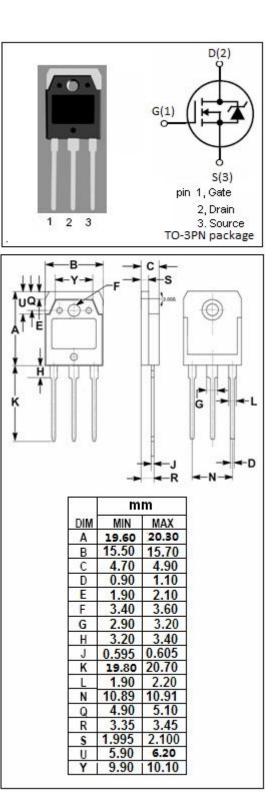
APPLICATIONS

- Switch-Mode and Resonant-Mode Power Supplies
- DC-DC Converters
- AC and DC Motor Drives
- Robotics and Servo Controls

ABSOLUTE MAXIMUM RATINGS(Ta=25°C) SYMBOL PARAMETER VALUE UNIT **Drain-Source Voltage** 100 V VDSS Gate-Source Voltage-Continuous ± 20 V V_{GS} **Drain Current-Continuous** 170 А I_D Drain Current-Single Plused 350 А **I**DM P_D Total Dissipation @T_C=25℃ 715 W Max. Operating Junction Temperature 150 °C Ti -55~175 °C Storage Temperature Tstg

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	МАХ	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	0.25	°C/W



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• ELECTRICAL CHARACTERISTICS

T_c=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	МАХ	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D =250µA	100			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; Ι _D =250μΑ	2.0		5.0	V
V _{SD}	Diode Forward On-voltage	I _S = IF, ;V _{GS} = 0			1.5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D = 85A			9	mΩ
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			25	μA

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