

isc N-Channel MOSFET Transistor

IXTP05N100M

• FEATURES

- Drain Source Voltage-
: $V_{DS} = 1000V$ (Min)
- Static Drain-Source On-Resistance
: $R_{DS(on)} = 17 \Omega$ (Max)
- Fast Switching
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

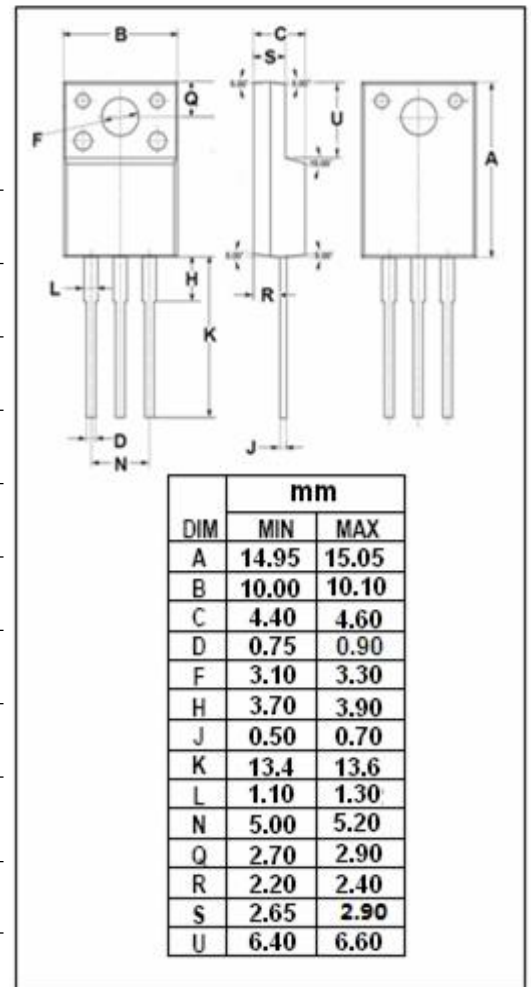
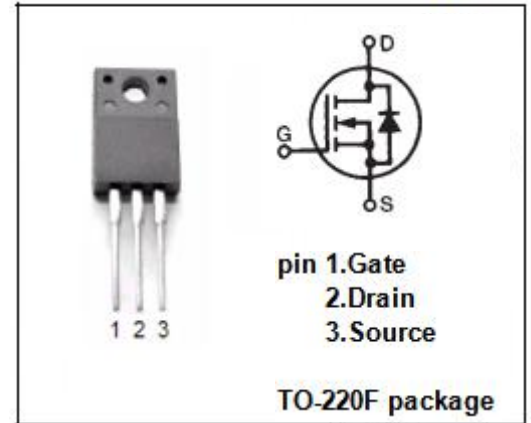
- Switch-Mode and Resonant-Mode Power Supplies
- DC-DC Converters
- AC and DC Motor Drives
- Robotics and Servo Controls

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DS}	Drain-Source Voltage	1000	V
V_{GS}	Gate-Source Voltage-Continuous	± 30	V
I_D	Drain Current-Continuous	0.7	A
I_{DM}	Drain Current-Single Pulsed	3	A
P_D	Total Dissipation @ $T_c = 25^\circ C$	25	W
T_j	Max. Operating Junction Temperature	-55~150	$^\circ C$
T_{stg}	Storage Temperature	-55~150	$^\circ C$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	0.23	$^\circ C/W$



isc N-Channel MOSFET Transistor**IOTP05N100M****• ELECTRICAL CHARACTERISTICS****T_c=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP E	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D =250uA	1000			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D =250uA	2.5		4.5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D = 0.375A			17	Ω
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±30V; V _{DS} = 0			±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =1000V; V _{GS} = 0 V _{DS} =1000V; V _{GS} = 0; T _J =150°C			25 500	μA
V _{SD}	Diode Forward On-voltage	I _F = 0.75A ; V _{GS} = 0			1.5	V

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