

# isc N-Channel MOSFET Transistor

# IXTC200N085T

**• FEATURES**

- Static drain-source on-resistance:  
 $R_{DS(on)} \leq 5.0m\Omega @ V_{GS}=10V$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**• APPLICATION**

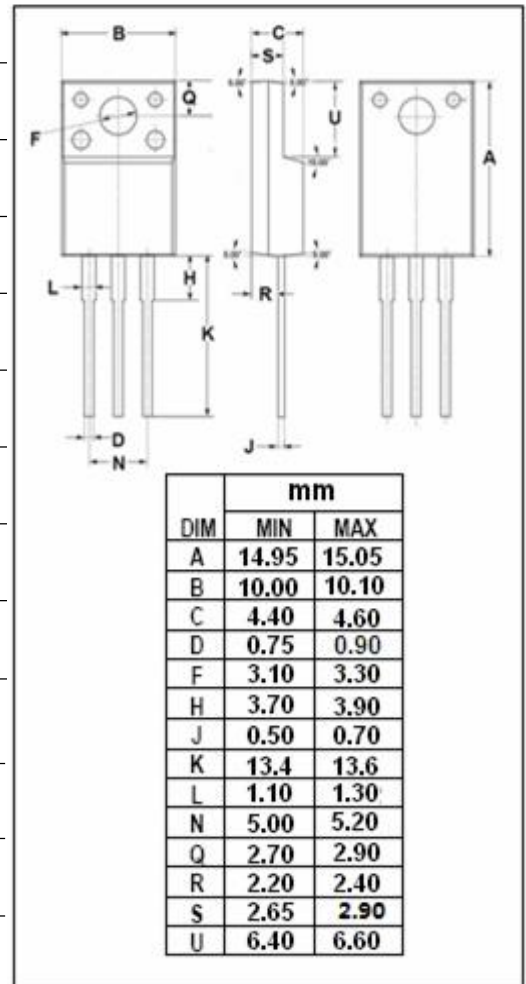
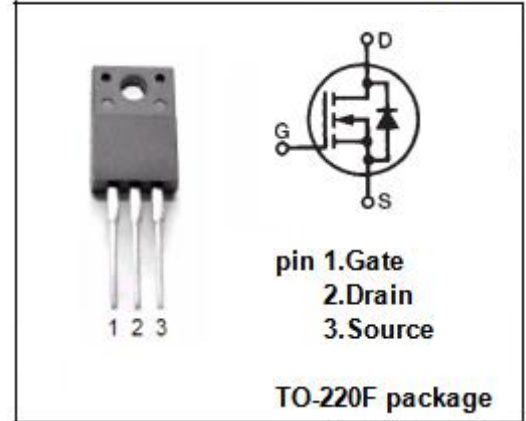
- DC/DC Converters
- High Current Switching Applications

**• ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>DSS</sub>	Drain-Source Voltage	85	V
V <sub>GS</sub>	Gate-Source Voltage	±20	V
I <sub>D</sub>	Drain Current-Continuous	200	A
I <sub>DM</sub>	Drain Current-Single Pulsed	540	A
P <sub>D</sub>	Total Dissipation @T <sub>c</sub> =25°C	480	W
T <sub>j</sub>	Operating Junction Temperature	-55~175	°C
T <sub>stg</sub>	Storage Temperature	-55~175	°C

**• THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th(j-c)</sub>	Junction-to-case thermal resistance	0.31	°C/W



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## ELECTRICAL CHARACTERISTICS

T<sub>C</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> = 0V; I <sub>D</sub> = 250 μ A	85		V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> = V <sub>GS</sub> ; I <sub>D</sub> = 250 μ A	2.0	4.0	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> =10V; I <sub>D</sub> = 25A		5.0	mΩ
I <sub>GSS</sub>	Gate-Source Leakage Current	V <sub>GS</sub> = ±20V; V <sub>DS</sub> =0V		±200	nA
I <sub>DSS</sub>	Drain-Source Leakage Current	V <sub>DS</sub> = V <sub>DSS</sub> ; V <sub>GS</sub> = 0V		5	μ A
		V <sub>DS</sub> = V <sub>DSS</sub> ; V <sub>GS</sub> = 0V; T <sub>J</sub> = 150°C		250	
V <sub>SD</sub>	Diode forward voltage	I <sub>F</sub> = 25A; V <sub>GS</sub> = 0V		1.0	V

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