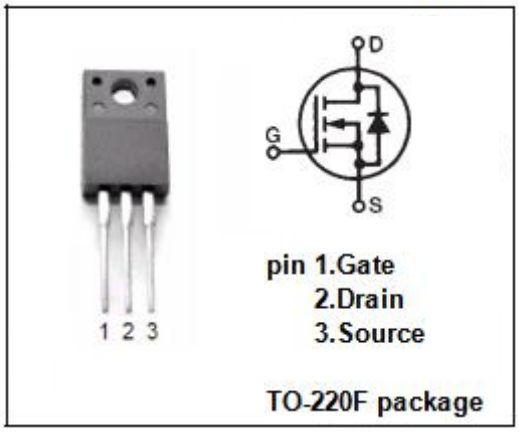
isc N-Channel MOSFET Transistor IXTC180N10T



- **FEATURES**
- Static drain-source on-resistance:
  $R_{DS(on)} \leq 6.4m\Omega @ V_{GS}=10V$
- Fully characterized avalanche voltage and current
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

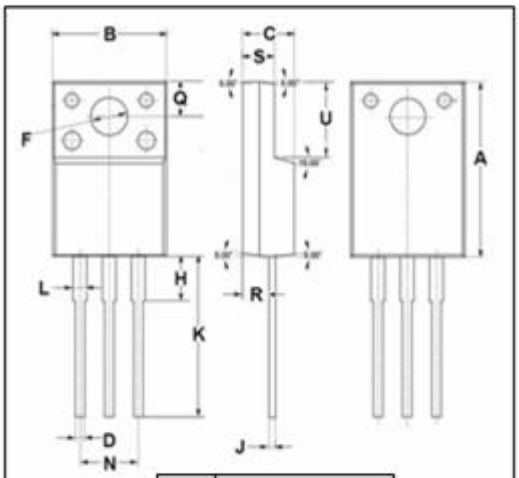
- **APPLICATION**
- DC/DC Converters
- High Speed Power Switching Applications

- **ABSOLUTE MAXIMUM RATINGS(T_a=25℃)**

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	100	V
V_{GS}	Gate-Source Voltage	±20	V
I_D	Drain Current-Continuous	180	A
I_{DM}	Drain Current-Single Pulsed	450	A
P_D	Total Dissipation @T_C=25℃	480	W
T_j	Operating Junction Temperature	-55~175	℃
T_{stg}	Storage Temperature	-55~175	℃

- **THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(j-c)}$	Junction-to-case thermal resistance	0.31	℃/W



DIM	mm MIN	MAX
A	14.95	15.05
B	10.00	10.10
C	4.40	4.60
D	0.75	0.90
F	3.10	3.30
H	3.70	3.90
J	0.50	0.70
K	13.4	13.6
L	1.10	1.30
N	5.00	5.20
Q	2.70	2.90
R	2.20	2.40
S	2.65	2.90
U	6.40	6.60

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
BV_{DSS}	Drain-Source Breakdown Voltage	V_{GS}= 0V; I_D = 250 μA	100		V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}= V_{GS}; I_D = 250 μA	2.0	4.0	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}=10V; I_D= 25A		6.4	mΩ
I_{GSS}	Gate-Source Leakage Current	V_{GS}= ±20V;V_{DS}=0V		±100	nA
I_{DSS}	Drain-Source Leakage Current	V_{DS}= V_{DSS}; V_{GS}= 0V		5	μA
		V_{DS}= V_{DSS}; V_{GS}= 0V;T_J= 150℃		100	
V_{SD}	Diode forward voltage	I_F= 25A; V_{GS} = 0V		0.95	V