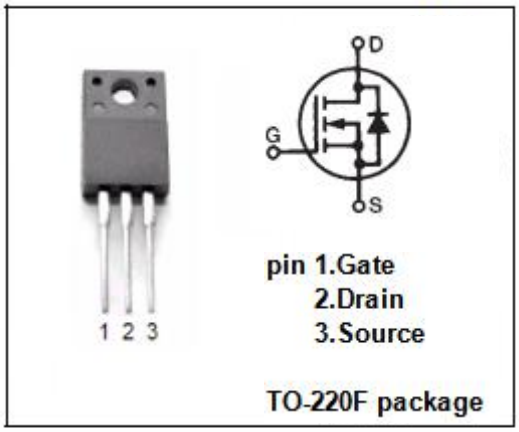
isc N-Channel MOSFET Transistor IXTK33N50



- **FEATURES**
- Drain Source Voltage-
  : V_{DSS}= 500V(Min)
- Static drain-source on-resistance
  : R_{DS}(on) ≤ 60mΩ@V_{GS}=10V
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

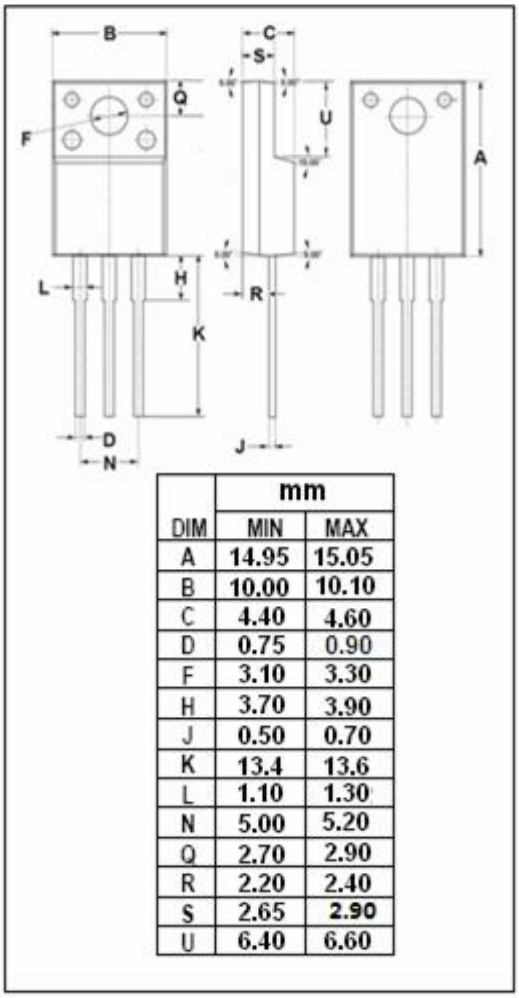
- **APPLICATION**
- DC/DC Converter
- Ideal for high-frequency switching and synchronous rectification

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	500	V
V_{GS}	Gate-Source Voltage	±20	V
I_D	Drain Current-Continuous	33	A
I_{DM}	Drain Current-Single Pulsed	132	A
P_D	Total Dissipation @T_C=25℃	416	W
T_j	Operating Junction Temperature	-55~150	℃
T_{stg}	Storage Temperature	-55~150	℃

- **THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(j-c)}$	Junction-to-case thermal resistance	0.3	℃/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 =5mA	500		V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}=V_{GS}; I_D =250μA	2	4	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}=10V; I_D= 25A		60	mΩ
I_{GSS}	Gate-Source Leakage Current	V_{GS}= ±20V;V_{DS}=0V		±100	nA
I_{DSS}	Drain-Source Leakage Current	V_{DS}= 400V; V_{GS}= 0V		200	μA
		V_{DS}= 400V; V_{GS}= 0V;T_J=125℃		3000	
V_{SD}	Diode forward voltage	I_F= 33A; V_{GS} = 0V		1.5	V