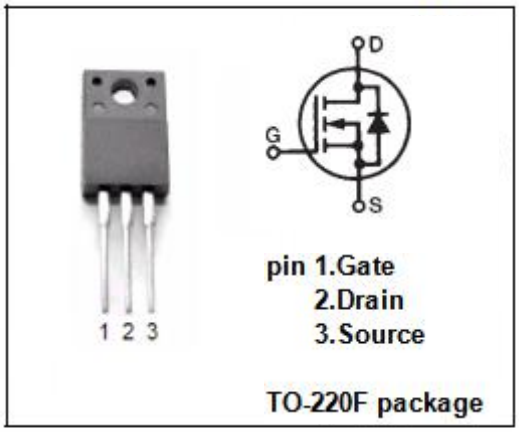
isc N-Channel MOSFET Transistor IXTP32N65XM



- **FEATURES**
- High power dissipation
- Static drain-source on-resistance:
  $R_{DS}(on) \leq 135m\Omega @ V_{GS}=10V$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

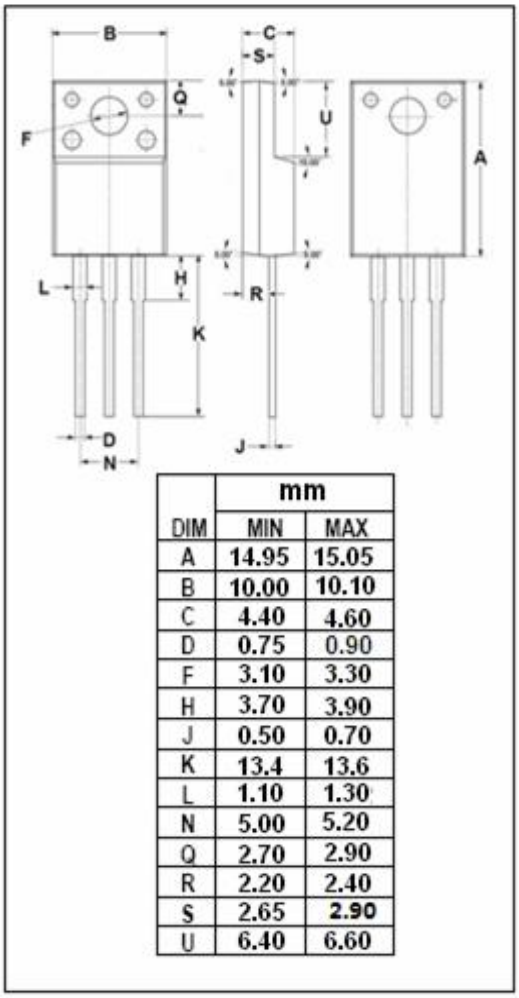
- **APPLICATION**
- DC/DC Converters
- AC and DC Motor Drives
- Switch-Mode and Resonant-Mode Power Supplies

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	650	V
V_{GS}	Gate-Source Voltage	±30	V
I_D	Drain Current-Continuous	14	A
I_{DM}	Drain Current-Single Pulsed	64	A
P_D	Total Dissipation @T_C=25℃	78	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	1.6	℃/W



DIM	mm MIN	mm 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

isc N-Channel MOSFET Transistor IXTP32N65XM

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV_{DSS}	Drain-Source Breakdown Voltage	V_{GS}=0V; I_D = 250μA	650			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}=V_{GS}; I_D = 250μA	3		5.5	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}=10V; I_D= 16A			135	mΩ
I_{GSS}	Gate-Source Leakage Current	V_{GS}= ±30V;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= 125℃			50	
V_{SD}	Diode forward voltage	I_F= 32A; V_{GS} = 0V			1.4	V