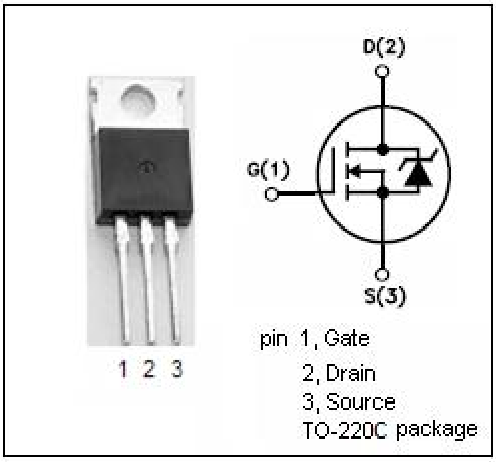
isc N-Channel MOSFET Transistor TK72E12N1

• FEATURES

- With TO-220 packaging
- High speed switching
- Very high commutation ruggedness
- Easy to use
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

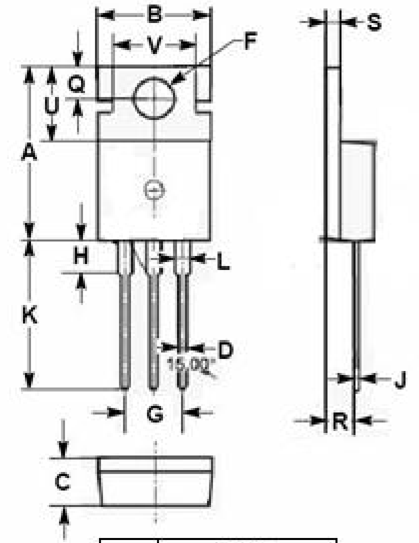


• APPLICATIONS

- PFC stages
- LCD & PDP TV
- Power supply
- Switching applications

• ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	120	V
V_{GSS}	Gate-Source Voltage	±20	V
I_D	Drain Current-Continuous@T_C=25℃ T_C=100℃	179 72	A
I_{DM}	Drain Current-Single Pulsed	360	A
P_D	Total Dissipation	255	W
T_j	Operating Junction Temperature	-55~150	℃
T_{stg}	Storage Temperature	-55~150	℃



DIM	mm MIN	mm MAX
A	15.50	15.90
B	9.90	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2. 68	2.90
J	0.44	0.60
K	13. 00	13.40
L	1.10	1. 45
Q	2.70	2.90
R	2. 30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
Rth(ch-c)	Channel-to-case thermal resistance	0.49	℃/W
Rth(ch-a)	Channel-to-ambient thermal resistance	83.3	℃/W

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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= 10mA	120			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}=V_{GS}; I_D=1.0mA	2.0		4.0	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 10V; I_D=36A		3.6	4.4	mΩ
I_{GSS}	Gate-Source Leakage Current	V_{GS}= ±20V;V_{DS}= 0V			±0.1	μA
I_{DSS}	Drain-Source Leakage Current	V_{DS}= 120V; V_{GS}= 0V			10	μA
V_{SDF}	Diode forward voltage	I_{SD}=72A, V_{GS} = 0 V			1.2	V