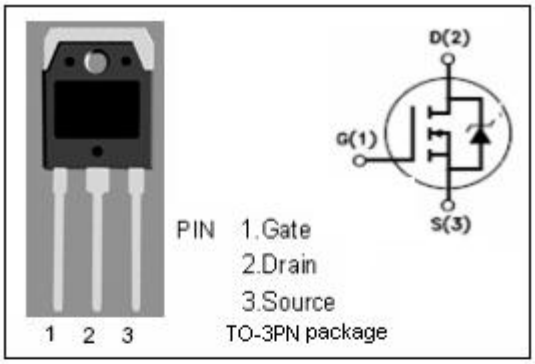
isc N-Channel MOSFET Transistor TK9J90E

- **DESCRIPTION**
- Drain Current I_D= 9A@ T_C=25℃
- Drain Source Voltage-
  : V_{DSS}= 900V(Min)
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



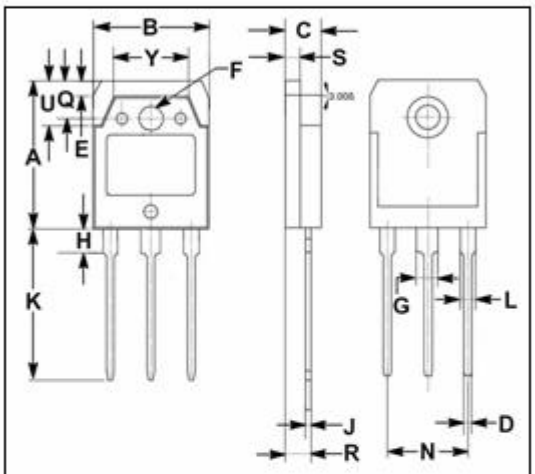
- **APPLICATIONS**
- Switching voltage regulators

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage (V_{GS}=0)	900	V
V_{GS}	Gate-Source Voltage	±30	V
I_D	Drain Current-continuous@ T_C=25℃	9	A
$I_{D(puls)}$	Pulse Drain Current	27	A
P_{tot}	Total Dissipation@T_C=25℃	250	W
T_j	Max. Operating Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

- **THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	0.5	℃/W



DIM	mm MIN	MAX
A	19.60	20.10
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	20.00	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.10
Y	9.90	10.10

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• ELECTRICAL CHARACTERISTICS (T_C=25℃)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}= 0; I_D=10mA	900			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}= V_{GS}; I_D=0.9mA	2.5		4.0	V
V_{SD}	Diode Forward On-Voltage	I_S=9A ;V_{GS}= 0			1.7	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 10V; I_D=4.5A			1.3	Ω
I_{GSS}	Gate-Body Leakage Current	V_{GS}= ±30V;V_{DS}= 0			±1	μA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}= 720V; V_{GS}= 0			10	μA