

100V, 90A N-Channel MOSFET

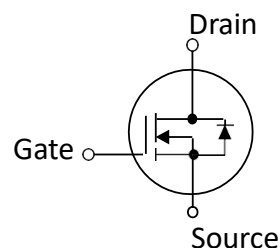
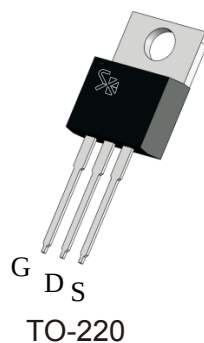
DESCRIPTION

- Fast Switching Capability
- Avalanche Energy Specified
- Improved dv/dt Capability, High Ruggedness

FEATURES

- $BV_{DSS} \geq 100V$
- $I_D = 90A$
- $R_{DS(ON)} \leq 5m\Omega @ V_{GS}=10V$
- $R_{DS(ON)} \leq 8.5m\Omega @ V_{GS}=4.5V$

BV_{DSS}	$R_{DS(ON),typ.}$	I_D
100V	5m Ω	90A



Package No to Scale

Application

- Motor drive and uninterruptible power supply
- Industrial automation control equipment
- High efficiency DC/DC Converters

Ordering Information

Part Number	Package
SKG90N10-T	TO-220

Absolute Maximum Ratings (T_c=25°C Unless Otherwise Noted)

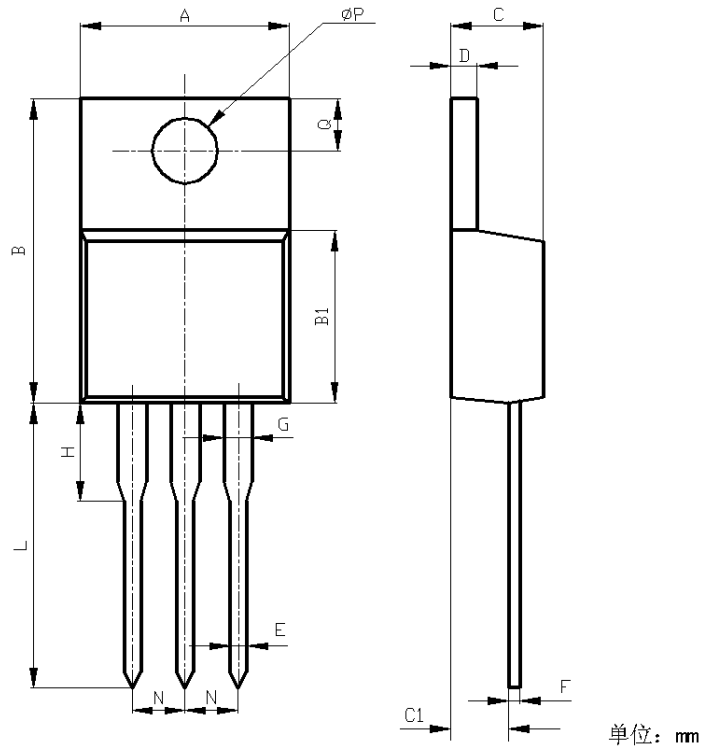
Parameter	Symbol	Maximum Ratings	Unit
Drain-Source Voltage	V_{DS}	100	V
Gate-Source Voltage	V_{GS}	±20	V
Drain Current - Continues	I_D	90	A

● Electrical Characteristics ($T_a = 25\text{ }^{\circ}\text{C}$ Unless Otherwise Noted)

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
Static Characteristics						
BV_{DSS}	Drain-Source Breakdown Voltage	$V_{GS} = 0\text{ V}, I_{DS} = 250\text{ }\mu\text{A}$	100	-	-	V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS} = V_{GS}, I_{DS} = 250\text{ }\mu\text{A}$	1.0	1.8	3.0	V
I_{DSS}	Drain Leakage Current	$V_{DS} = 100\text{ V}, V_{GS} = 0\text{ V}$	-	-	1	μA
		$T_J = 85\text{ }^{\circ}\text{C}$	-	-	30	μA
I_{GSS}	Gate Leakage Current	$V_{GS} = \pm 20\text{ V}, V_{DS} = 0\text{ V}$	-	-	± 100	nA
$R_{DS(ON)}^a$	On-State Resistance	$V_{GS} = 10\text{ V}, I_{DS} = 20\text{ A}$	-	4	5	m Ω
		$V_{GS} = 4.5\text{ V}, I_{DS} = 20\text{ A}$	-	6.5	8.5	
I_D	Continuous Drain Current	$T_J = 25\text{ }^{\circ}\text{C}$			90	A

PACKAGE OUTLINE

TO-220



	Unit (mm)	
	MIN	MAX
A	10.1	10.5
B	15.2	15.6
B1	9.00	9.40
C	4.40	4.60
C1	2.40	3.00
D	1.20	1.40
E	0.70	0.90
F	0.40	0.60
G	1.17	1.37
H	3.30	3.80
L	13.1	13.7
N	2.34	2.74
Q	2.40	3.00
Ø P	3.70	3.90