

## 150V, 100A N-Channel MOSFET

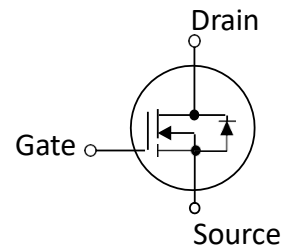
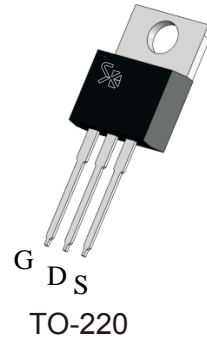
### DESCRIPTION

- Surface-mounted package
- Extremely low threshold voltage
- Advanced trench cell design

### FEATURES

- $BV_{DSS} \geq 150V$
- $I_D = 100A$
- $R_{DS(ON)} \leq 10.5m\Omega @ V_{GS}=10V$
- $R_{DS(ON)} \leq 12.5m\Omega @ V_{GS}=6V$

$BV_{DSS}$	$R_{DS(ON),typ.}$	$I_D$
150V	10.5m $\Omega$	100A



Package No to Scale

### Application

- Portable appliances
- Battery management
- High speed switch
- Low power DC to DC converter

### Ordering Information

Part Number	Package
SKG100N15-T	TO-220

### Absolute Maximum Ratings (T<sub>c</sub>=25°C Unless Otherwise Noted)

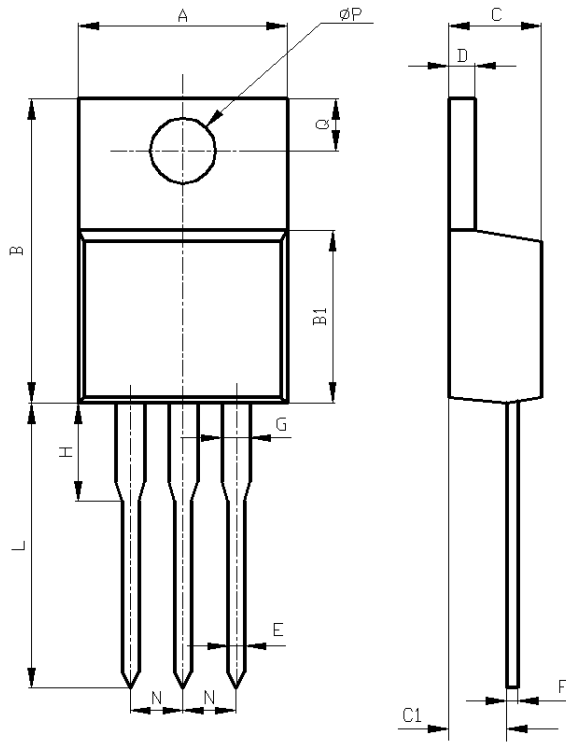
Parameter	Symbol	Maximum Ratings	Unit
Drain-Source Voltage	V <sub>DS</sub>	150	V
Gate-Source Voltage	V <sub>GS</sub>	±20	V
Drain Current - Continues	I <sub>D</sub>	100	A

- Electrical Characteristics (Ta = 25 °C Unless Otherwise Noted)

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
Static Characteristics						
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> = 0 V, I <sub>DS</sub> = 250 μA	150	-	-	V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> = V <sub>GS</sub> , I <sub>DS</sub> = 250 μA		-	4	
I <sub>DSS</sub>	Drain Leakage Current	V <sub>DS</sub> = 120 V, V <sub>GS</sub> = 0 V	-	-	1	μA
		T <sub>J</sub> = 85 °C	-	-	30	μA
I <sub>GSS</sub>	Gate Leakage Current	V <sub>GS</sub> = ±25 V, V <sub>DS</sub> = 0 V	-	-	± 100	nA
R <sub>DS(ON)</sub> <sup>a</sup>	On-State Resistance	V <sub>GS</sub> = 10 V, I <sub>DS</sub> = 1 A	-	8.5	10.5	mΩ
		V <sub>GS</sub> = 6 V, I <sub>DS</sub> = 1 A	-	9.5	12.5	
Diode Characteristics						
V <sub>SD</sub>	Diode Forward Voltage	I <sub>SD</sub> = 1 A, V <sub>GS</sub> = 0 V	-	0.7	1.3	V

## PACKAGE OUTLINE

TO-220



单位: mm

	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
Φ P	3.70	3.90