

100V, 45A N-Channel MOSFET

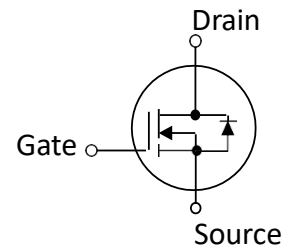
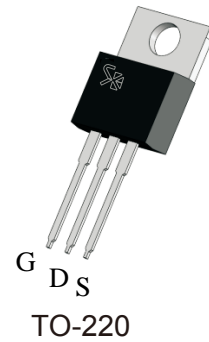
DESCRIPTION

- High density cell design for ultra low Rds
- Fully characterized avalanche voltage and current
- Excellent package for good heat dissipation

BV_{DSS}	$R_{DS(ON),typ.}$	I_D
100V	17.5m Ω	45A

FEATURES

- $BV_{DSS} \geq 100V$
- $I_D = 45A$
- $R_{DS(ON)} \leq 17.5m\Omega @ V_{GS}=10V$
- $R_{DS(ON)} \leq 22m\Omega @ V_{GS}=4.5V$



Package No to Scale

Application

- Hard switched and high frequency circuits
- Power switching application
- Uninterruptible power supply

Ordering Information

Part Number	Package
SKG45N10-T	TO-220

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

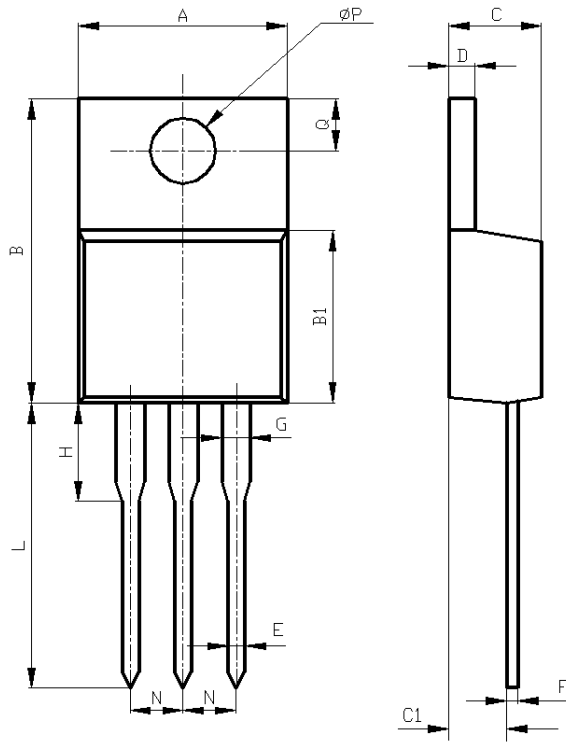
Parameter	Symbol	Maximum Ratings	Unit
Drain-Source Voltage	V _{DS}	100	V
Gate-Source Voltage	V _{GS}	±20	V
Drain Current - Continues	I _D	45	A

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

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
Static Characteristics						
BV_{DSS}	Drain-Source Breakdown Voltage	$V_{GS} = 0\text{ V}, I_{DS} = 250\ \mu\text{A}$	100	-	-	V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS} = V_{GS}, I_{DS} = 250\ \mu\text{A}$	1.0	1.8	2.5	V
I_{DSS}	Drain Leakage Current	$V_{DS} = 100\text{ V}, V_{GS} = 0\text{ V}$	-	-	0.3	μA
		$T_J = 85\text{ }^\circ\text{C}$	-	-	-	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	$V_{GS} = 10\text{ V}, I_{DS} = 20\text{ A}$	-	14	17.5	m Ω
		$V_{GS} = 4.5\text{ V}, I_{DS} = 10\text{ A}$	-	17.5	22	
I_D	Continuous Drain Current	$T_J = 25\text{ }^\circ\text{C}$			45	A

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