

100V, 130A N-Channel MOSFET

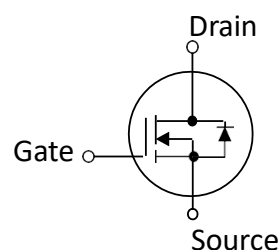
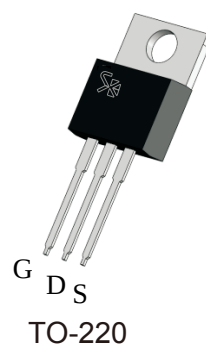
DESCRIPTION

- Advanced trench cell design
- High speed switch
- RoHS Compliant

FEATURES

- $BV_{DSS} \geq 100V$
- $I_D = 130A$
- $R_{DS(ON)} \leq 3.9\Omega @ V_{GS}=10V$
- $R_{DS(ON)} \leq 5.6\Omega @ V_{GS}=4.5V$

BV_{DSS}	$R_{DS(ON),typ.}$	I_D
100V	3.9 Ω	130A



Package No to Scale

Application

- Portable appliances
- Power management
- High efficiency DC/DC Converters

Ordering Information

Part Number	Package
SKG130N10-T	TO-220

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

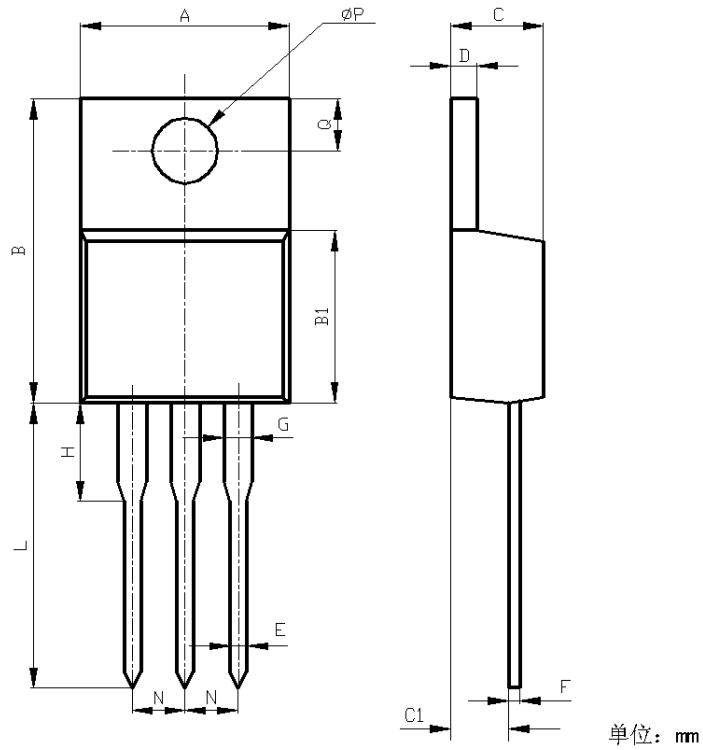
Parameter	Symbol	Maximum Ratings	Unit
Drain-Source Voltage	V_{DS}	100	V
Gate-Source Voltage	V_{GS}	±20	V
Drain Current - Continues	I_D	130	A

● **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 V, I _{DS} = 250 μA	100	-	-	V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} , I _{DS} = 250 μA		2	3	
I _{DSS}	Drain Leakage Current	V _{DS} = 80 V, V _{GS} = 0 V	-	-	1	μA
		T _J = 85 °C	-	-	30	μA
I _{GSS}	Gate Leakage Current	V _{GS} = ±20 V, V _{DS} = 0 V	-	-	± 100	nA
R _{DS(ON)} ^a	On-State Resistance	V _{GS} = 10 V, I _{DS} = 1 A	-	3	3.9	mΩ
		V _{GS} = 4.5 V, I _{DS} = 1 A	-	4	5.6	
Diode Characteristics						
V _{SD}	Diode Forward Voltage	I _{SD} = 1 A, V _{GS} = 0 V	-	0.7	1.3	V

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
ϕP	3.70	3.90