

isc N-Channel MOSFET Transistor

2SK2313

DESCRIPTION

- Drain Current $I_D = 60A @ T_c=25^\circ C$
- Drain Source Voltage $V_{DSS} = 60V(\text{Min})$
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

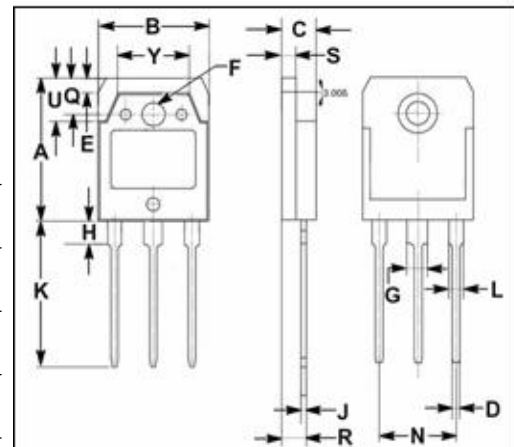
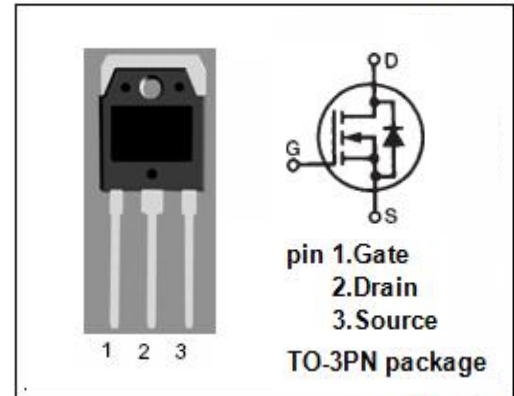
- Switch Mode Power Supply (SMPS)
- Uninterruptible Power Supply (UPS)
- High current switching applications
- DC-DC converter and motor drive applications

ABSOLUTE MAXIMUM RATINGS($T_c=25^\circ C$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS}=0$)	60	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-continuous@ $T_c=25^\circ C$	60	A
I_{DP}^*	Drain Current-Single Pluse	240	A
P_{tot}	Total Dissipation@ $T_c=25^\circ C$	150	W
E_{AS}^{**}	Single pulse avalanche energy	1054	mJ
I_{AR}^*	Avalanche Current	60	A
T_j	Max. Operating Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.833	$^\circ C/W$



DIM	mm	
	MIN	MAX
A	19.60	20.30
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	19.80	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	6.20
Y	9.90	10.10

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• ELECTRICAL CHARACTERISTICS (T_c=25°C)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0V; I _D = 10mA	60	-	-	V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = 10V, I _D = 1mA	0.8	-	2.0	V
R _{DS(ON)1}	Drain-Source On-stage Resistance	V _{GS} = 10V; I _D = 30A	-	-	11	mΩ
R _{DS(ON)2}	Drain-Source On-stage Resistance	V _{GS} = 4V; I _D = 30A	-	-	15	mΩ
I _{GSS}	Gate Source Leakage Current	V _{GS} = ±16V; V _{DS} = 0V	-	-	±10	μA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 60V, V _{GS} = 0V	-	-	100	μA
V _{SD}	Diode Forward Voltage	I _{SD} = 60A; V _{GS} = 0V	-	-	1.7	V

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