

isc N-Channel MOSFET Transistor

2SK2258

• FEATURES

- With TO-3PN packaging
- High speed switching
- Standard level gate drive
- Easy to use
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

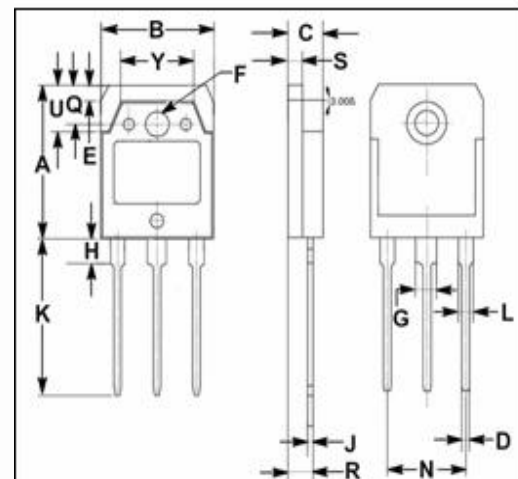
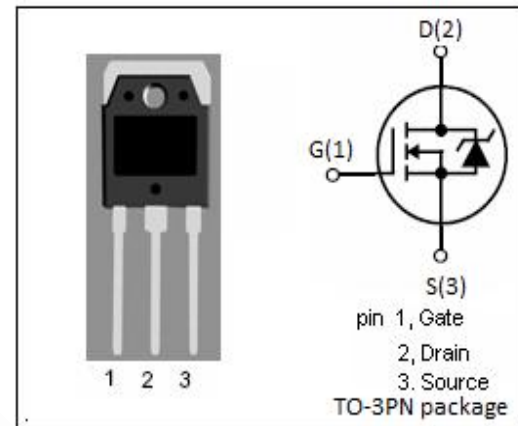
- Power supply
- Switching applications

• ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DS}	Drain-Source Voltage	1000	V
V_{GS}	Gate-Source Voltage	± 30	V
I_D	Drain Current-Continuous	4	A
I_{DM}	Drain Current-Single Pulsed	16	A
P_D	Total Dissipation	100	W
T_j	Operating Junction Temperature	-55~150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55~150	$^{\circ}\text{C}$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	0.83	$^{\circ}\text{C/W}$
$R_{th(ch-a)}$	Channel-to-ambient thermal resistance	40	$^{\circ}\text{C/W}$



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

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV_{DSS}	Drain-Source Breakdown Voltage	$V_{GS}=0V; I_D=1mA$	1000			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=\pm 30V; I_D=0.25mA$	2.5		3.5	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10V; I_D=2A$		2.7	3.6	Ω
I_{GSS}	Gate-Source Leakage Current	$V_{GS}=\pm 30V; V_{DS}=0V$			± 0.1	μA
I_{DSS}	Drain-Source Leakage Current	$V_{DS}=1000V; V_{GS}=0V; T_J=25^{\circ}\text{C}$ $T_J=125^{\circ}\text{C}$			500 1000	μA
V_{SDF}	Diode forward voltage	$I_{SD}=4A, V_{GS}=0V$			1.65	V