

isc N-Channel Mosfet Transistor

2SK3878

FEATURES

- Drain Current $-I_D = 9A @ T_C = 25^\circ C$
- Drain Source Voltage-
: $V_{DSS} = 900V(\text{Min})$
- Static Drain-Source On-Resistance
: $R_{DS(on)} = 1.3 \Omega (\text{Max})$
- Avalanche Energy Specified
- Fast Switching
- Simple Drive Requirements
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

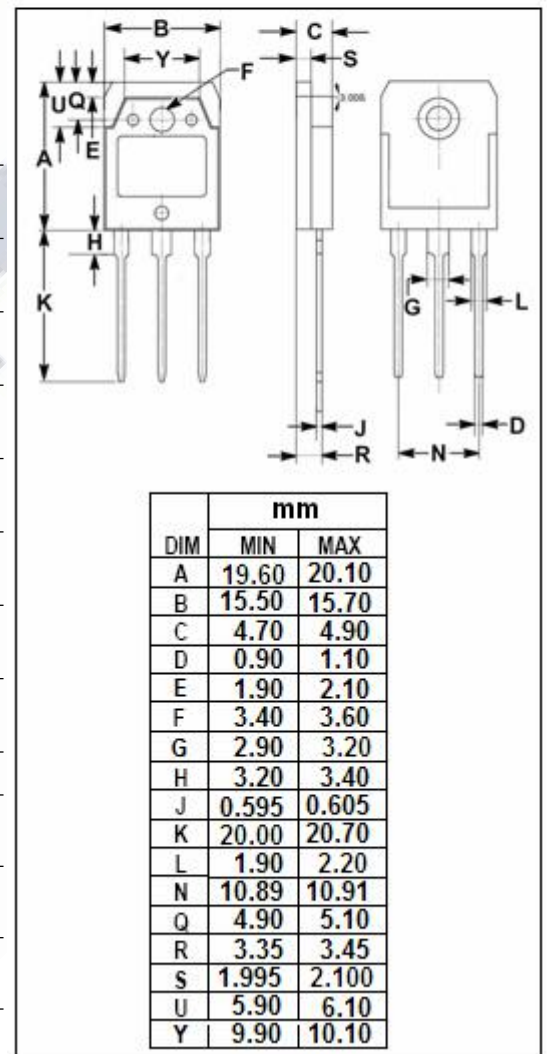
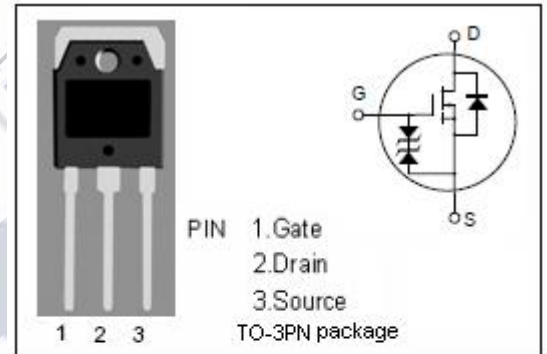
- Designed for a load switch or in PWM applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	900	V
V_{GS}	Gate-Source Voltage-Continuous	± 30	V
I_D	Drain Current-Continuous	9	A
I_{DM}	Drain Current-Single Plused	27	A
P_D	Total Dissipation @ $T_C = 25^\circ C$	150	W
T_j	Max. Operating Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature	-55~150	$^\circ C$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	0.833	$^\circ C/W$
$R_{th j-a}$	Thermal Resistance, Junction to Ambient	50	$^\circ C/W$



isc N-Channel Mosfet Transistor**2SK3878****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0; I_D=0.25\text{mA}$	900		V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}; I_D=1.0\text{mA}$	3	5	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}; I_D=4.0\text{A}$		1.3	Ω
I_{GSS}	Gate-Body Leakage Current	$V_{GS}=\pm 30\text{V}; V_{DS}=0$		± 100	nA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=900\text{V}; V_{GS}=0$		10	μA
V_{SD}	Forward On-Voltage	$I_S=9\text{A}; V_{GS}=0$		1.4	V