

isc N-Channel MOSFET Transistor

2SK1277

DESCRIPTION

- Drain Current $-I_D = 30A @ T_C = 25^\circ C$
- Drain Source Voltage-
: $V_{DSS} = 250V(\text{Min})$
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

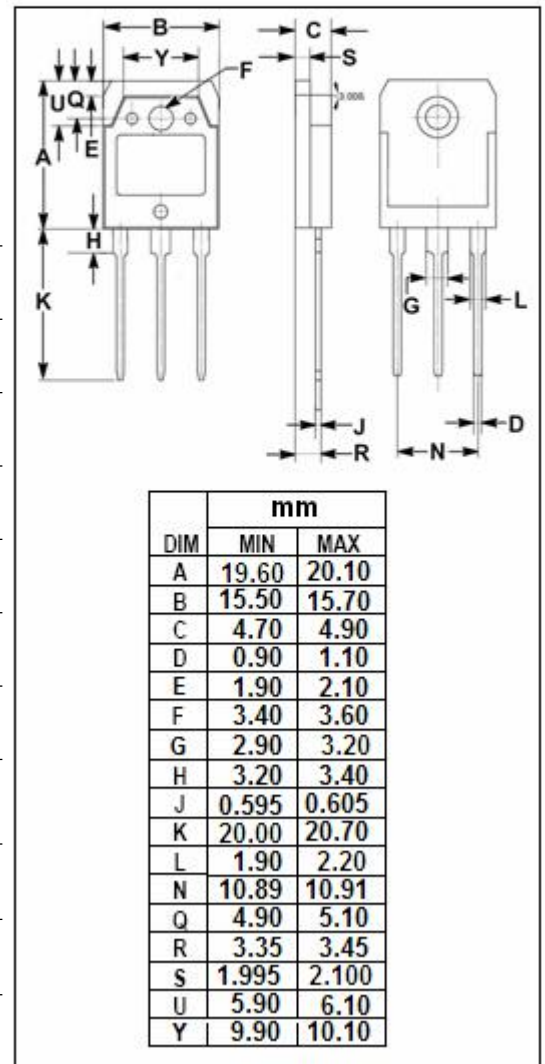
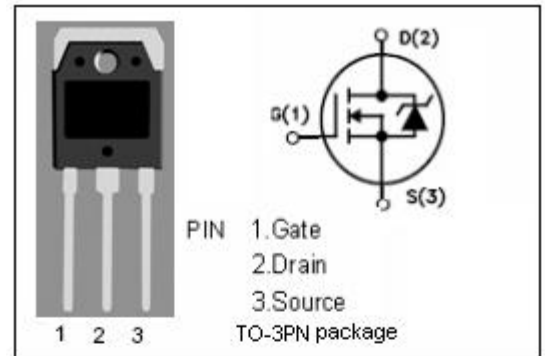
- high speed power switching

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS}=0$)	250	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-continuous@ $T_C = 25^\circ C$	30	A
P_{tot}	Total Dissipation@ $T_C = 25^\circ C$	150	W
T_j	Max. Operating Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
θ_{j-c}	Thermal Resistance, Junction to Case	0.83	$^\circ C/W$
θ_{j-a}	Thermal Resistance, Junction to Ambient	35	$^\circ C/W$



isc N-Channel Mosfet Transistor**2SK1277****• ELECTRICAL CHARACTERISTICS (T_c=25°C)**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} =0; I _D = 1mA	250			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =10 V _{GS} ; I _D =10mA	2.1	3.0	4.0	V
R _{DS(on)}	Drain-Source On-stage Resistance	V _{GS} =10V; I _D =15A		0.09	0.12	Ω
I _{GSS}	Gate Source Leakage Current	V _{GS} = ±20V; V _{DS} = 0			± 100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =250V; V _{GS} = 0			500	uA
V _{SD}	Diode Forward Voltage	I _F =30A; V _{GS} =0		0.9	1.8	V
t _r	Rise time	V _{GS} =10V; I _D =30A; R _L =25 Ω		140	210	ns
t _{on}	Turn-on time			175	260	ns
t _f	Fall time			180	270	ns
t _{off}	Turn-off time			600	900	ns

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