

isc N-Channel MOSFET Transistor

2SK905

DESCRIPTION

- Drain Current $-I_D=45A@ T_C=25^\circ C$
- Drain Source Voltage-
: $V_{DSS}=50V(\text{Min})$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

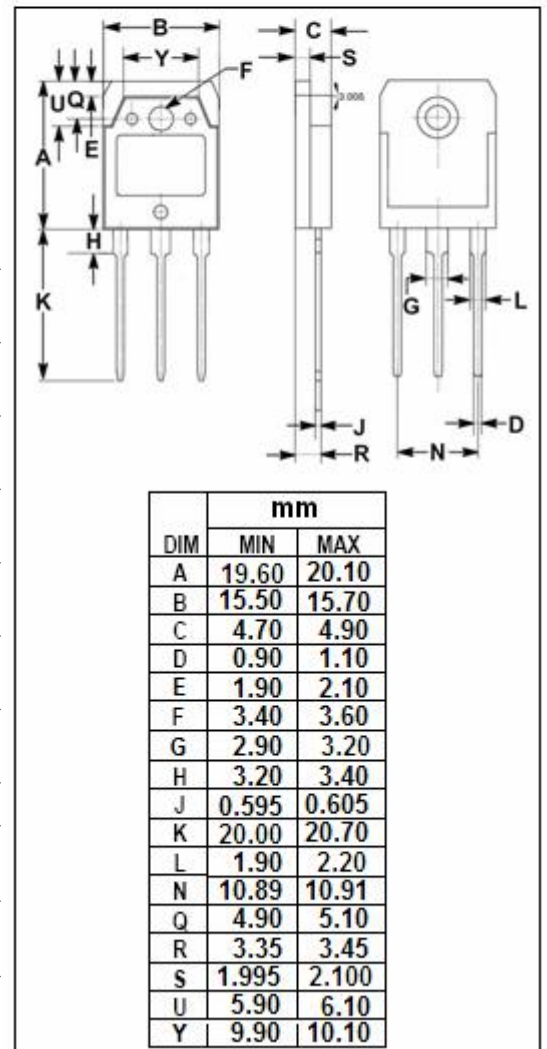
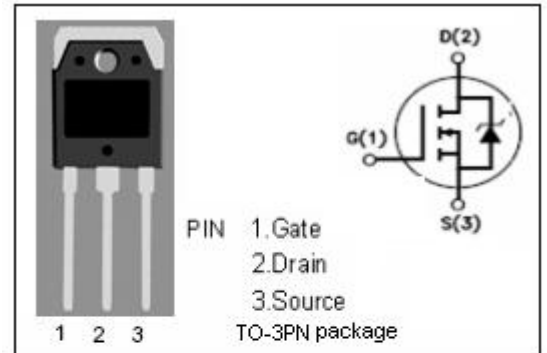
- Designed especially for low voltage.
- high speed applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS}=0$)	50	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-continuous@ $T_C=25^\circ C$	45	A
P_{tot}	Total Dissipation@ $T_C=25^\circ C$	125	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
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.0	$^\circ C/W$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	35	$^\circ C/W$



isc N-Channel Mosfet Transistor**2SK905****• 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	50			V
V _{GS(TH)}	Gate Threshold Voltage	V _{DS} = 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 =22A		0.025	0.03	Ω
I _{GSS}	Gate Source Leakage Current	V _{GS} = ±20V; V _{DS} = 0			± 100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =50V; V _{GS} = 0			500	μA
ton	Turn-on time	V _{GS} =10V; I _D =3A; R _L =50 Ω		160	240	ns
toff	Turn-off time			550	800	ns
V _{SD}	Diode Forward Voltage	I _F =45A; V _{GS} =0		1.6	2.4	V

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