

isc N-Channel MOSFET Transistor

2SK899

DESCRIPTION

- Drain Current $-I_D=18A@T_C=25^{\circ}C$
- Drain Source Voltage-
: $V_{DSS}=500V(\text{Min})$
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

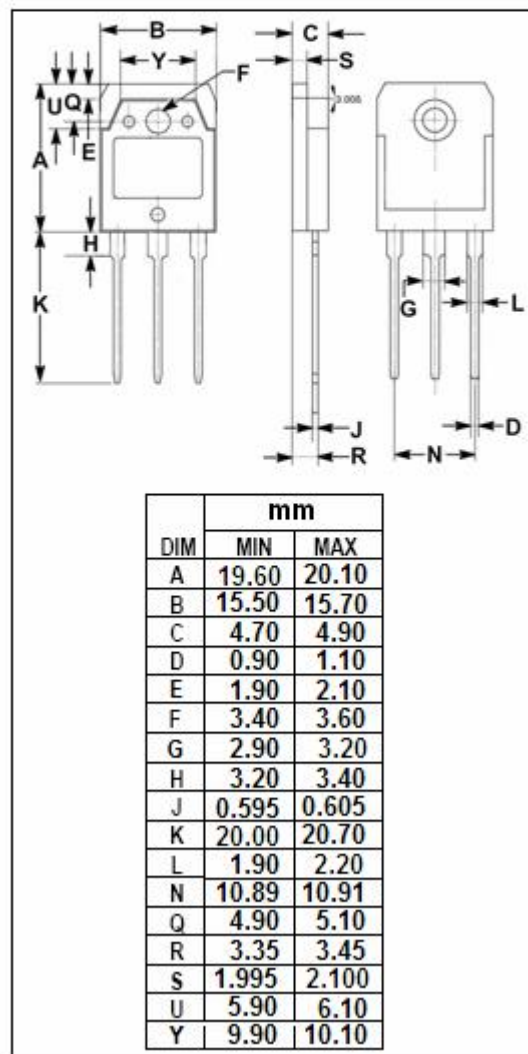
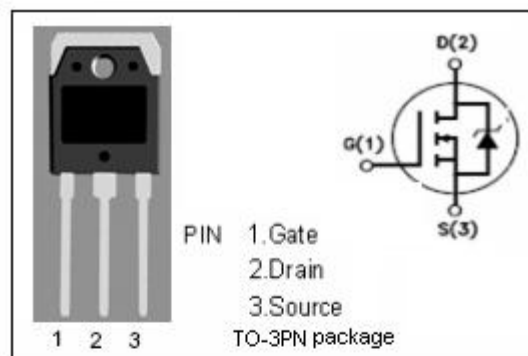
- Switching regulators
- UPS
- DC-DC converters
- General purpose power amplifier

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

SYMBOL	ARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS}=0$)	500	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-continuous@ $TC=25^{\circ}C$	18	A
$I_{D(puls)}$	Pulsed Drain Current	72	A
P_{tot}	Total Dissipation@ $TC=25^{\circ}C$	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**2SK899****• 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	500			V
V _{GS(TH)}	Gate Threshold Voltage	V _{DS} =10V; I _D = 1mA	2.1	3.0	4.0	V
R _{DS(ON)}	Drain-Source On-stage Resistance	V _{GS} = 10V; I _D =8A		0.28	0.33	Ω
I _{GSS}	Gate Source Leakage Current	V _{GS} = ±20V; V _{DS} = 0			±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =500V; V _{GS} = 0			500	μA
G _{fs}	Forward Transconductance	V _{DS} = 25V; I _D =8A	8			S
ton	Turn-on time	V _{GS} =30V; I _D =2.8A; R _L =50 Ω		130	195	ns
toff	Turn-off time			330	430	ns
V _{SD}	Diode Forward Voltage	I _F =36A; V _{GS} =0		1.0	1.7	V