

isc N-Channel MOSFET Transistor

2SK3148

• FEATURES

- With TO-220F packaging
- Low switching loss
- Ultra low gate charge
- Easy to use
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operationz

• APPLICATIONS

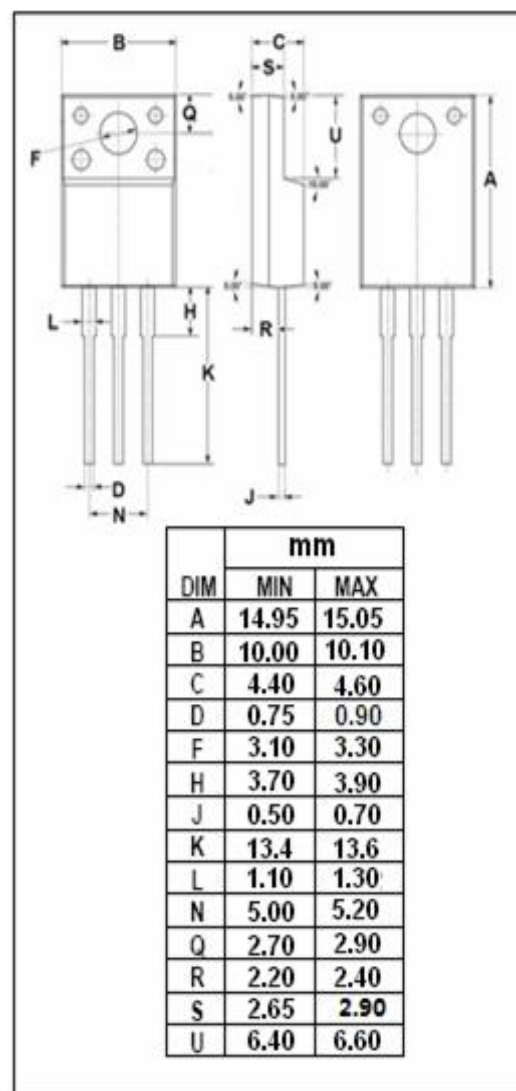
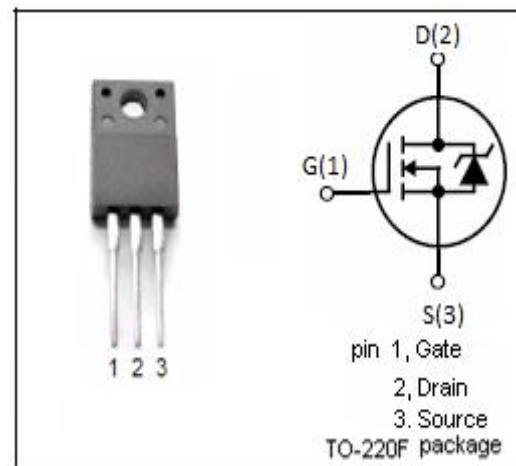
- Switching applications
- AC-DC converters
- LED lighting
- Uninterruptible power supply

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DS}	Drain-Source Voltage	100	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-Continuous	20	A
I_{DM}	Drain Current-Single Pulsed	60	A
P_D	Total Dissipation	30	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	0.59	$^{\circ}\text{C/W}$
$R_{th(ch-a)}$	Channel-to-ambient thermal resistance	62.5	$^{\circ}\text{C/W}$



isc N-Channel MOSFET Transistor**2SK3148****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V; I _D =10mA	100			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =±20V; I _D =1mA	1.0		2.5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D =10A		45	60	mΩ
I _{GSS}	Gate-Source Leakage Current	V _{GS} = ±16V; V _{DS} = 0V			±10	μA
I _{DSS}	Drain-Source Leakage Current	V _{DS} = 100V; V _{GS} = 0V			10	μA
V _{SDF}	Diode forward voltage	I _{SD} =20A, V _{GS} = 0V		0.9		V

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