

isc N-Channel MOSFET Transistor

2SK1085-M

• FEATURES

- With TO-220F packaging
- High speed switching
- Easy to use
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

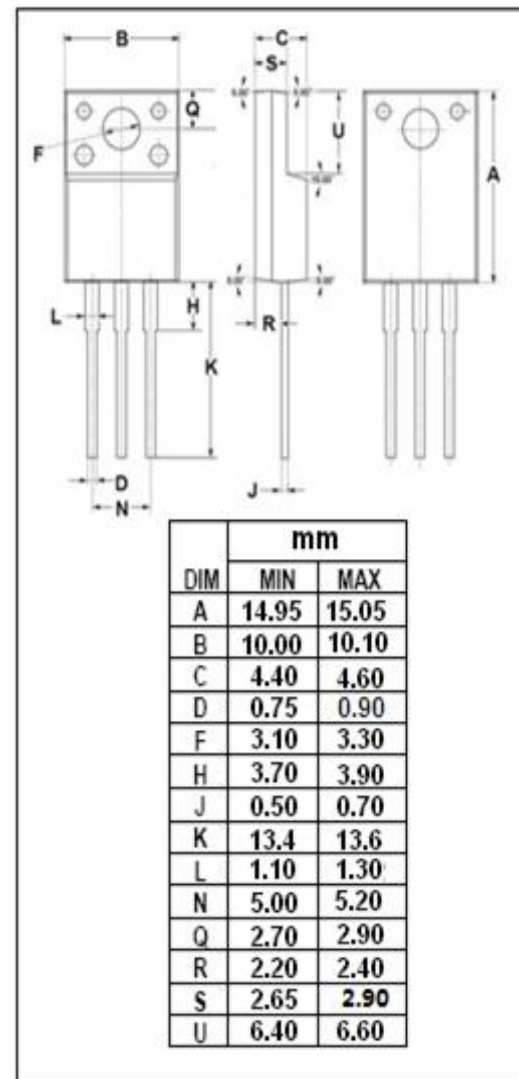
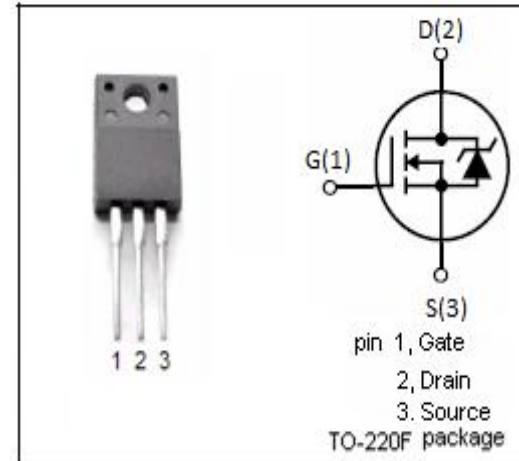
- Power supply
- DC-DC converters
- Motor control
- Switching applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	150	V
V_{GSS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-Continuous	3	A
I_{DM}	Drain Current-Single Pulsed	12	A
P_D	Total Dissipation	20	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
Rth(ch-c)	Channel-to-case thermal resistance	6.25	$^{\circ}\text{C/W}$
Rth(ch-a)	Channel-to-ambient thermal resistance	62.5	$^{\circ}\text{C/W}$



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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 = 1mA	150			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} = 4V; I _D =1.5A		0.72	1.17	Ω
I _{GSS}	Gate-Source Leakage Current	V _{GS} = ±25V; V _{DS} = 0V			±0.1	μA
I _{DSS}	Drain-Source Leakage Current	V _{DS} = 150V; V _{GS} = 0V; T _J =25°C T _J =125°C			0.5 1.0	mA
V _{SDF}	Diode forward voltage	I _{SD} =3A, V _{GS} = 0 V			1.43	V

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