

isc Silicon NPN Power Transistor
DK151F
DESCRIPTION

- With TO-3 packaging
- Large collector current
- Low collector saturation voltage
- High power dissipation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

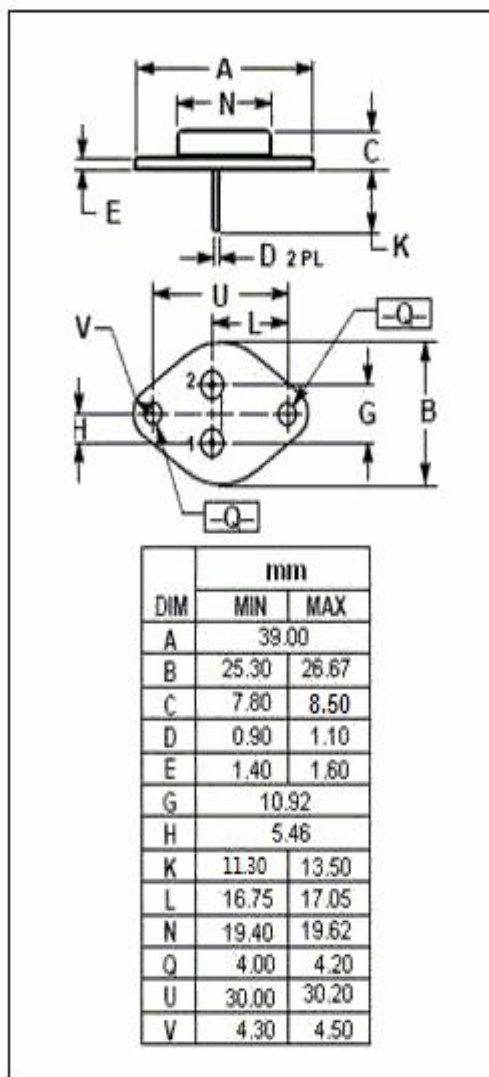
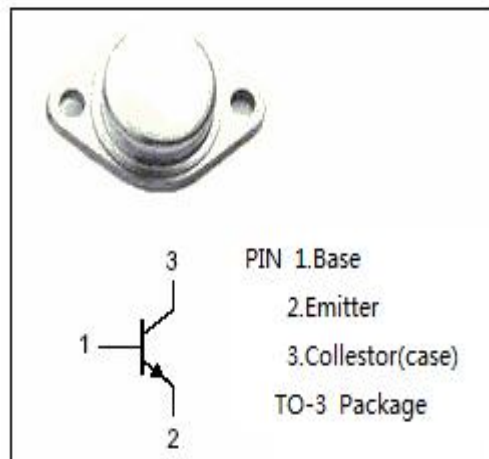
- Designed for use in DC-DC converter
- Driver of solenoid or motor
- For audio amplifier applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	200	V
V_{CEO}	Collector-Emitter Voltage	200	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	20	A
I_{CM}	Peak Collector Current	40	A
P_C	Collector Power Dissipation	150	W
T_J	Junction Temperature	-65~150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-65~150	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.66	$^{\circ}\text{C/W}$



isc Silicon NPN Power Transistors**DK151F****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 30mA; I _B = 0	200		V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 1mA; I _E = 0	200		V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 1mA; I _C = 0	5		V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 7.5A; I _B = 0.75A		0.8	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 7.5A; I _B = 0.75A		1.8	V
I _{CEO}	Collector Cutoff Current	V _{CE} = 200V; I _B =0		0.2	mA
I _{CBO}	Collector Cutoff Current	V _{CB} = 200V; I _E =0		0.2	mA
h _{FE}	DC Current Gain	I _C = 7.5A; V _{CE} = 5V	10		

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