

isc Silicon NPN Power Transistor
BUP49
DESCRIPTION

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

APPLICATIONS

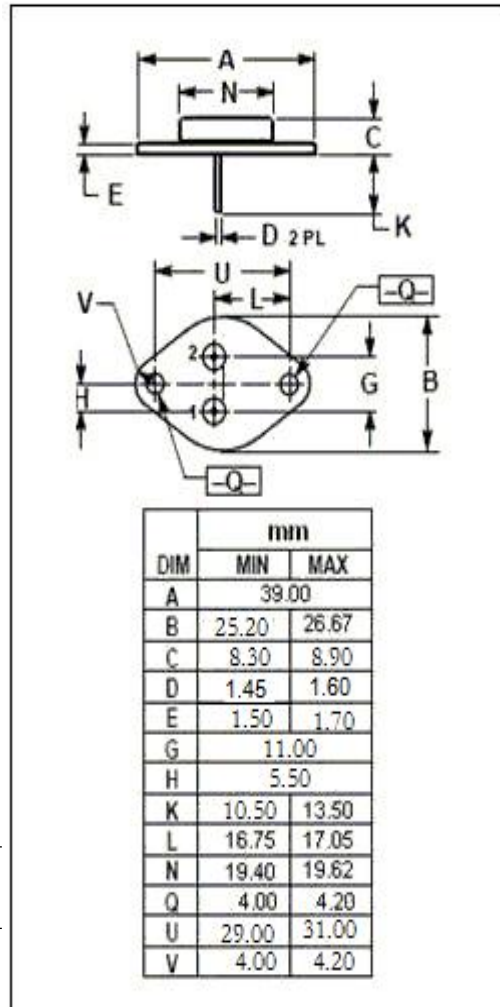
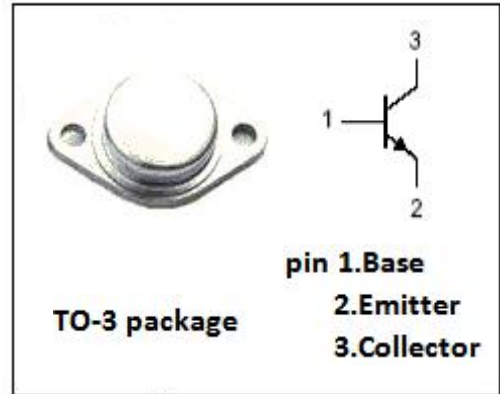
- Designed for use in DC-DC converter
- Driver of solenoid or motor
- For audio amplifier applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	150	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	8	V
I_C	Collector Current-Continuous	90	A
P_C	Collector Power Dissipation	300	W
T_J	Junction Temperature	-55~200	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~200	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.58	$^\circ\text{C/W}$



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ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = 30\text{mA}; I_B = 0$	80		V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = 1\text{mA}; I_E = 0$	150		V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = 1\text{mA}; I_C = 0$	8		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 35\text{A}; I_B = 2\text{A}$		1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 35\text{A}; I_B = 2\text{A}$		1.5	V
I_{CEO}	Collector Cutoff Current	$V_{CE} = 80\text{V}; I_B = 0$		0.1	mA
I_{CBO}	Collector Cutoff Current	$V_{CB} = 150\text{V}; I_E = 0$		0.1	mA
h_{FE-1}	DC Current Gain	$I_C = 80\text{A}; V_{CE} = 4\text{V}$	15		

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