

isc Silicon NPN Power Transistors

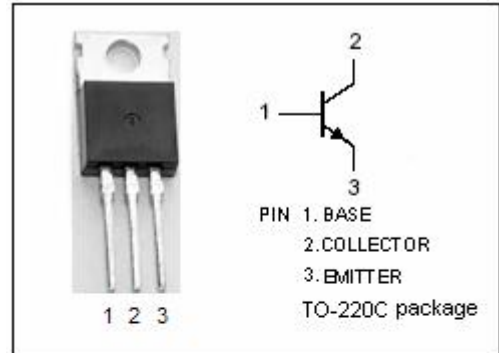
BUP30

DESCRIPTION

- Low Collector Saturation Voltage
: $V_{CE(sat)} = 0.4V(\text{Max}) @ I_C = 6A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

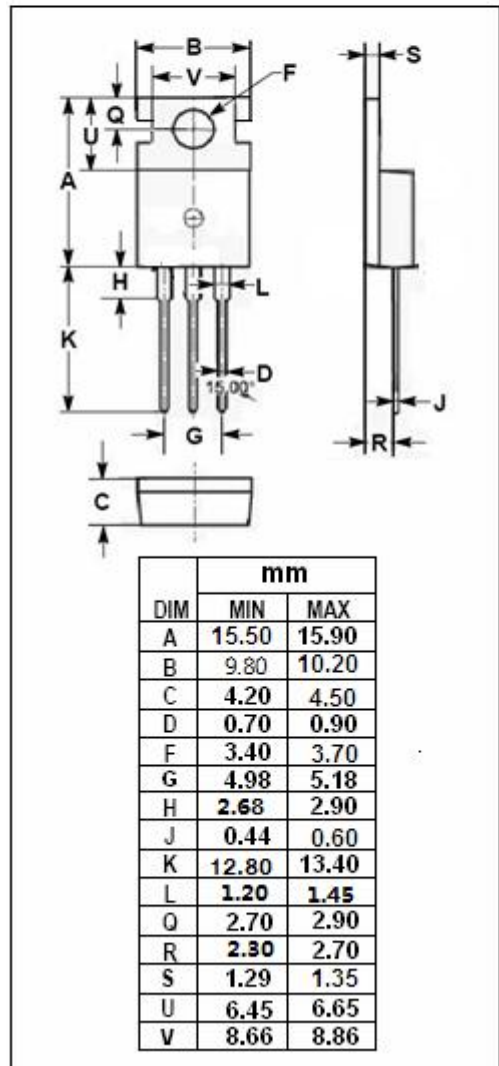
APPLICATIONS

- Designed for relay drivers, high-speed inverters, converters, and other general high-current switching applications



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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	30	A
P_C	Collector Power Dissipation @ $T_c = 25^\circ\text{C}$	35	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 10mA ; R _{BE} = ∞	30			V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 1mA ; I _E = 0	50			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 1mA ; I _C = 0	6			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 6A ; I _B = 0.3A			0.4	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 40V ; I _E = 0			100	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 4V ; I _C =0			100	μ A
h _{FE-1}	DC Current Gain	I _C = 1A ; V _{CE} = 2V	70		300	
h _{FE-2}	DC Current Gain	I _C = 5A ; V _{CE} = 2V	30			
f _T	Current-Gain—Bandwidth Product	I _C = 1A ; V _{CE} = 5V		20		MHz

NOTICE:

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