

isc Silicon NPN Power Transistor

BD807

DESCRIPTION

- DC Current Gain -
: $h_{FE} = 30(\text{Min.}) @ I_C = 2A$
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(\text{SUS})} = 60V(\text{Min})$
- Complement to Type BD808
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

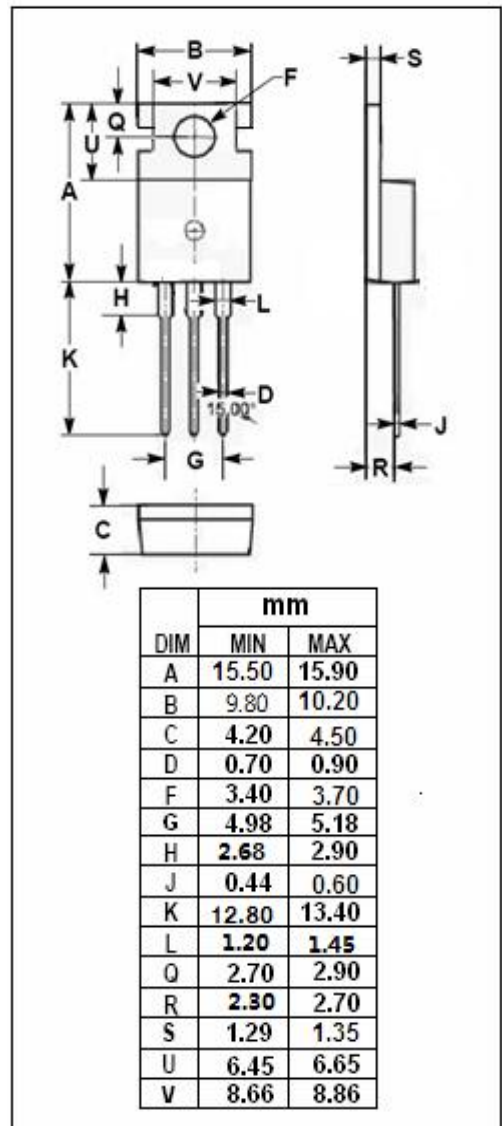
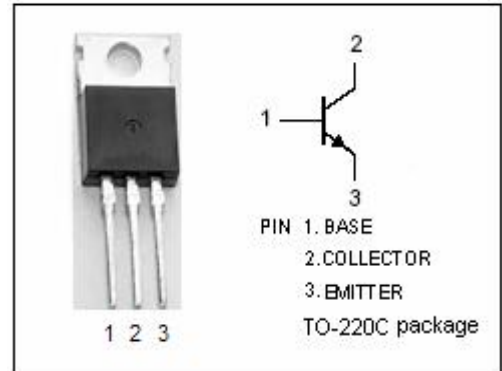
- Designed for use in high power audio amplifiers utilizing complementary or quasi complementary circuits.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	70	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	10	A
I_B	Base Current	6	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	90	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.39	$^\circ\text{C/W}$



isc Silicon NPN Power Transistor**BD807****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CEQ(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 30mA; I _B = 0	60		V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 4A; I _B = 0.4A		1.1	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 4A; V _{CE} = 2V		1.6	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 70V; I _E = 0		1.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0		2.0	mA
h _{FE-1}	DC Current Gain	I _C = 2A ; V _{CE} = 2V	30		
h _{FE-2}	DC Current Gain	I _C = 4A ; V _{CE} = 2V	15		
f _T	Current-Gain—Bandwidth Product	I _C = 1.0A ; V _{CE} = 10V; f _{test} = 1.0MHz	1.5		MHz

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