

isc Silicon NPN Power Transistor
BD347
DESCRIPTION

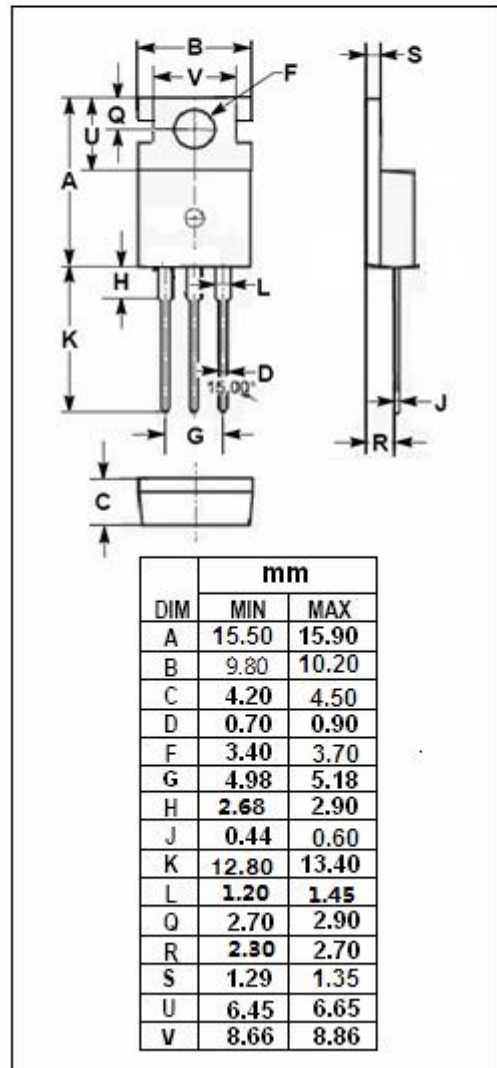
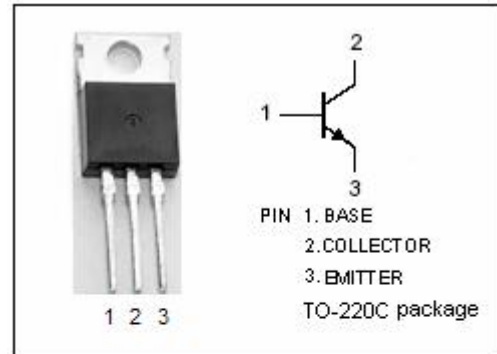
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 60V(\text{Min})$
- Collector-Emitter Saturation Voltage-
: $V_{CE(sat)} = 1.0V(\text{Max}) @ I_C = 3A$
- Good Linearity of h_{FE}
- Minimum Lot-to-Lot variations for robust device performance and reliable operation.

APPLICATIONS

- Designed for RF power and general-purpose audio amplifier applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	8	A
I_{CM}	Collector Current-Peak $t_p \leq 10\text{ms}$	12	A
I_B	Base Current	3	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	60	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$



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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	$I_C = 30\text{mA}; I_B = 0$	60		V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = 1\text{mA}; I_E = 0$	60		V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = 1\text{mA}; I_C = 0$	5		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C = 3\text{A}; I_B = 0.3\text{A}$		1.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C = 6\text{A}; I_B = 0.6\text{A}$		1.5	V
$V_{BE(sat)-1}$	Base-Emitter Saturation Voltage	$I_C = 3\text{A}; I_B = 0.3\text{A}$		1.5	V
$V_{BE(sat)-2}$	Base-Emitter Saturation Voltage	$I_C = 6\text{A}; I_B = 0.6\text{A}$		2.0	V
I_{CEO}	Collector Cutoff Current	$V_{CE} = 60\text{V}; I_B = 0$		0.2	mA
I_{CBO}	Collector Cutoff Current	$V_{CB} = 60\text{V}; I_E = 0$		0.1	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 5\text{V}; I_C = 0$		0.1	mA
h_{FE}	DC Current Gain	$I_C = 3\text{A}; V_{CE} = 2\text{V}$	40		
f_T	Current-Gain—Bandwidth Product	$I_C = 0.5\text{A}; V_{CE} = 10\text{V}; f_{test} = 1.0\text{MHz}$	4.0		MHz

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