

isc Silicon PNP Power Transistor

BD343

DESCRIPTION

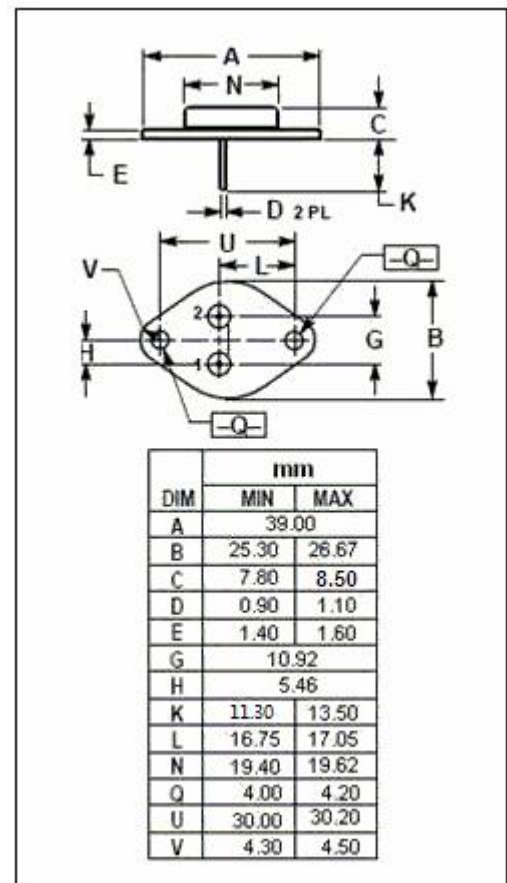
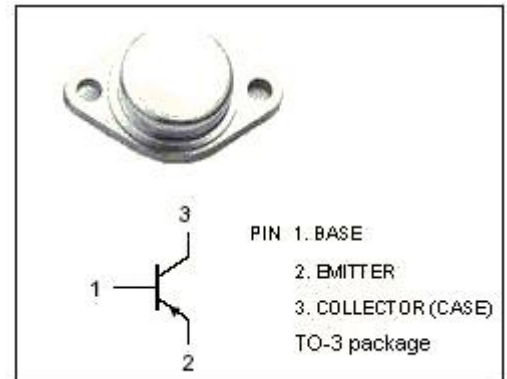
- Excellent Safe Operating Area
- High DC Current Gain-
: $h_{FE}=15-100(\text{Min})@I_C = -8\text{A}$
- Low Saturation Voltage-
: $V_{CE(\text{sat})} = -1.0\text{V}(\text{Max})@I_C = -8.0\text{A}$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for high power amplifier and switching applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-40	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-12	A
I_{CM}	Collector Current-Peak	-15	A
I_B	Base Current-Continuous	-5	A
P_C	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	100	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-65~150	$^\circ\text{C}$



isc Silicon PNP Power Transistor**BD343****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEQ(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C = -30\text{mA}; I_B = 0$	-40		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C = -8\text{A}; I_B = -0.8\text{A}$		-1.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C = -12\text{A}; I_B = -2\text{A}$		-2.0	V
$V_{BE(sat)-1}$	Base-Emitter Saturation Voltage	$I_C = -8\text{A}; I_B = -0.8\text{A}$		-2.0	V
$V_{BE(sat)-2}$	Base-Emitter Saturation Voltage	$I_C = -12\text{A}; I_B = -2\text{A}$		-3.0	V
I_{CEO}	Collector Cutoff Current	$V_{CE} = -40\text{V}; I_B = 0$		-0.5	mA
I_{CBO}	Collector Cutoff Current	$V_{CB} = -40\text{V}; I_E = 0$		-0.1	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -5.0\text{V}; I_C = 0$		-0.1	mA
h_{FE-1}	DC Current Gain	$I_C = -1\text{A}; V_{CE} = -5\text{V}$	60	200	
h_{FE-1}	DC Current Gain	$I_C = -8\text{A}; V_{CE} = -5\text{V}$	15	100	
h_{FE-2}	DC Current Gain	$I_C = -12\text{A}; V_{CE} = -5\text{V}$	5		
f_T	Current Gain-Bandwidth Product	$I_C = -1\text{A}; V_{CE} = -10\text{V}; f = 1\text{MHz}$	3.0		MHz

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