

isc Silicon PNP Power Transistor

2SB743

DESCRIPTION

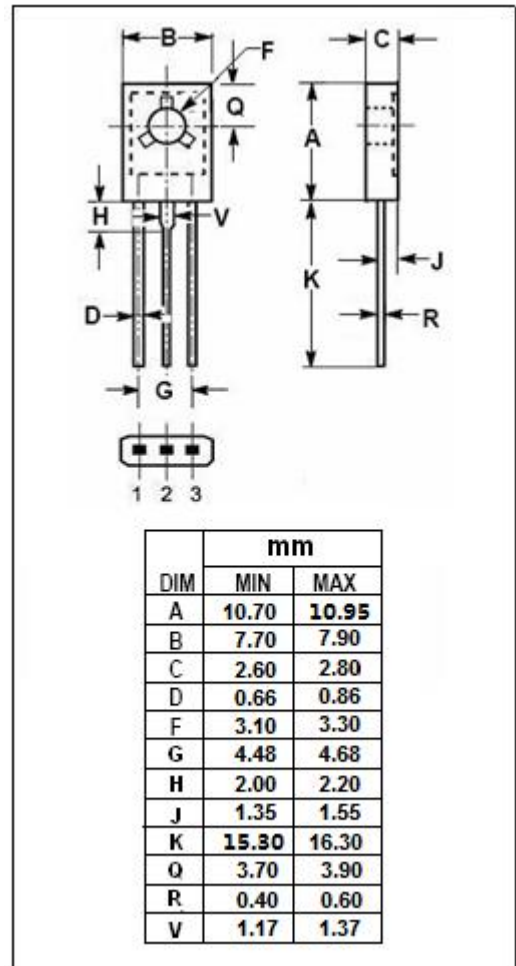
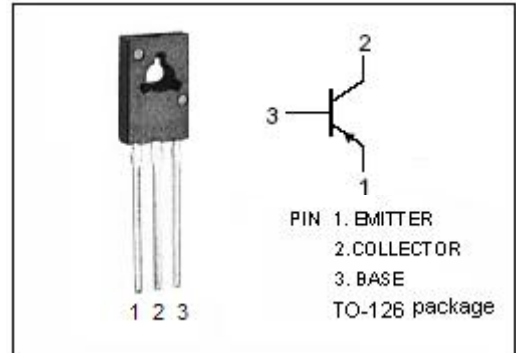
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -30V(\text{Min.})$
- Low Collector to Emitter Saturation Voltage
: $V_{CE(sat)} = -2.0V(\text{Max.}) @ I_C = -1.5A$
- Excellent h_{FE} linearity
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for audio frequency power amplifier and general purpose 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	-30	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-3	A
I_{CM}	Collector Current-Pulse	-5	A
I_B	Base Current-Continuous	-0.6	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	10	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

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEQ(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C = -10\text{mA}$; $I_B = 0$	-30			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -1.5\text{A}$; $I_B = -0.15\text{A}$			-2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -1.5\text{A}$; $I_B = -0.15\text{A}$			-2.0	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -50\text{V}$; $I_E = 0$			-1	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -5\text{V}$; $I_C = 0$			-1	μA
h_{FE-1}	DC Current Gain	$I_C = -20\text{mA}$; $V_{CE} = -5\text{V}$	30			
h_{FE-2}	DC Current Gain	$I_C = -1\text{A}$; $V_{CE} = -5\text{V}$	60		320	
f_T	Current-Gain—Bandwidth Product	$I_C = -0.1\text{A}$; $V_{CE} = -5\text{V}$		55		MHz

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