

isc Silicon PNP Power Transistor
2SB713
DESCRIPTION

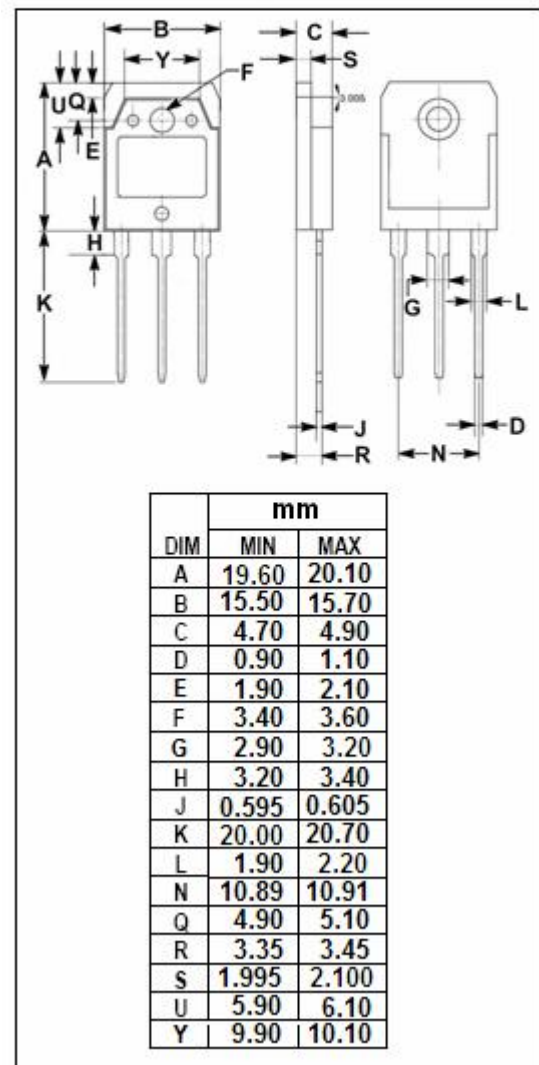
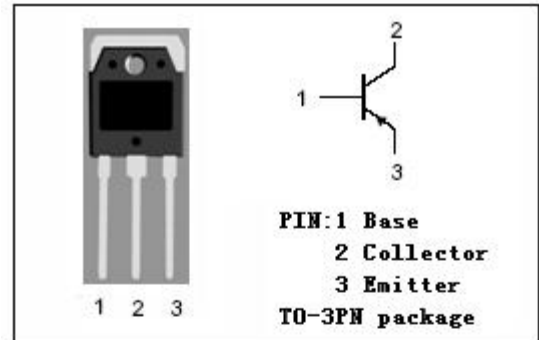
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -140V(\text{Min})$
- Good Linearity of h_{FE}
- High Power Dissipation
- Complement to Type 2SD751
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for high power audio frequency amplifier use.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-200	V
V_{CEO}	Collector-Emitter Voltage	-140	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-9	A
I_{CP}	Collector Current-Pulse	-15	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 Range	-55~150	$^\circ\text{C}$



isc Silicon PNP Power Transistor**2SB713****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -5.0\text{A}; I_B = -0.7\text{A}$			-2.0	V
$V_{BE(on)}$	Base -Emitter On Voltage	$I_C = -7\text{A}; V_{CE} = -5\text{V}$			-1.8	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -140\text{V}; I_E = 0$			-50	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -3\text{V}; I_C = 0$			-50	μA
h_{FE-1}	DC Current Gain	$I_C = -20\text{mA}; V_{CE} = -5\text{V}$	20			
h_{FE-2}	DC Current Gain	$I_C = -1\text{A}; V_{CE} = -5\text{V}$	40		200	
h_{FE-3}	DC Current Gain	$I_C = -5\text{A}; V_{CE} = -5\text{V}$	15			
f_T	Current-Gain—Bandwidth Product	$I_C = -0.5\text{A}; V_{CE} = -5\text{V}$		20		MHz

◆ **h_{FE-2} Classifications**

R	Q	P
40-80	60-120	100-200

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