

isc Silicon NPN Power Transistor

2SD1110

DESCRIPTION

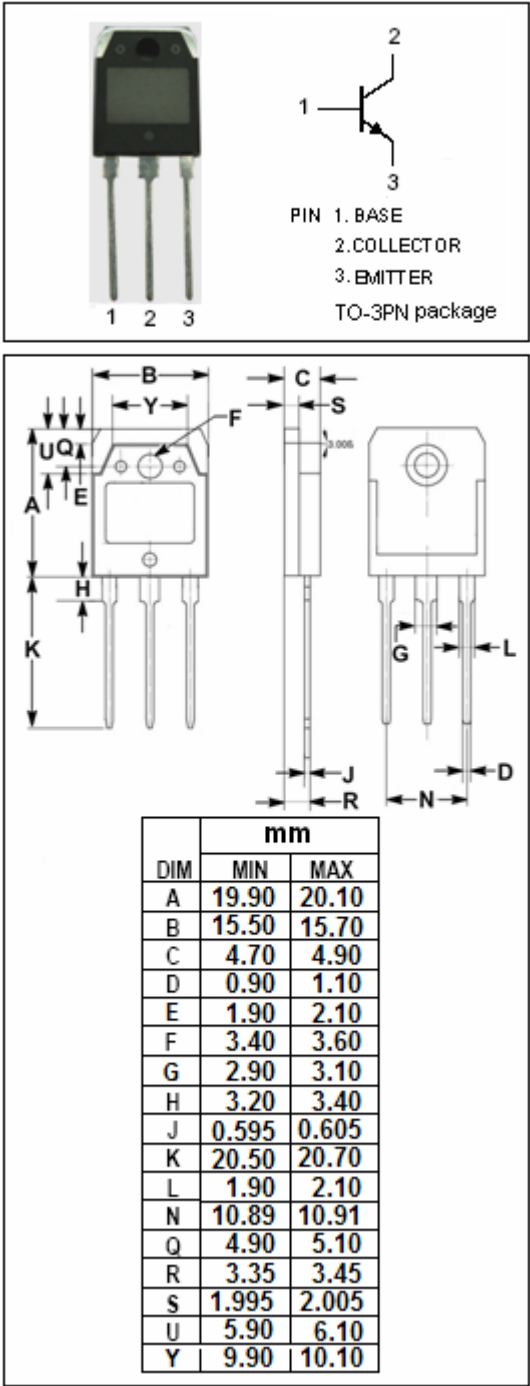
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 120V(\text{Min})$
- Good Linearity of h_{FE}
- Complement to Type 2SB849

APPLICATIONS

- Designed for audio frequency power amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	120	V
V_{CEO}	Collector-Emitter Voltage	120	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	7	A
I_{CP}	Collector Current-Pulse	12	A
P_C	Collector Power Dissipation @ $T_C=25^{\circ}C$	80	W
T_J	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}C$



isc Silicon NPN Power Transistor**2SD1110****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	$I_C = 5.0\text{A}; I_B = 0.5\text{A}$			2.0	V
$V_{BE(sat)}$	Base -Emitter Saturation Voltage	$I_C = 5.0\text{A}; I_B = 0.5\text{A}$			2.0	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = 120\text{V}; I_E = 0$			50	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 3\text{V}; I_C = 0$			50	μA
h_{FE-1}	DC Current Gain	$I_C = 50\text{mA}; V_{CE} = 5\text{V}$	20			
h_{FE-2}	DC Current Gain	$I_C = 1\text{A}; V_{CE} = 5\text{V}$	40		200	
C_{OB}	Output Capacitance	$I_E = 0; V_{CB} = 10\text{V}; f_{test} = 1.0\text{MHz}$		190		pF
f_T	Current-Gain—Bandwidth Product	$I_C = 0.2\text{A}; V_{CE} = 5\text{V}$		15		MHz

◆ **h_{FE-2} Classifications**

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