

**isc Silicon PNP Power Transistor**
**2SA780**
**DESCRIPTION**

- Collector-Emitter Sustaining Voltage -  
:  $V_{CEO(SUS)} = -50V(\text{Min})$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation.

**APPLICATIONS**

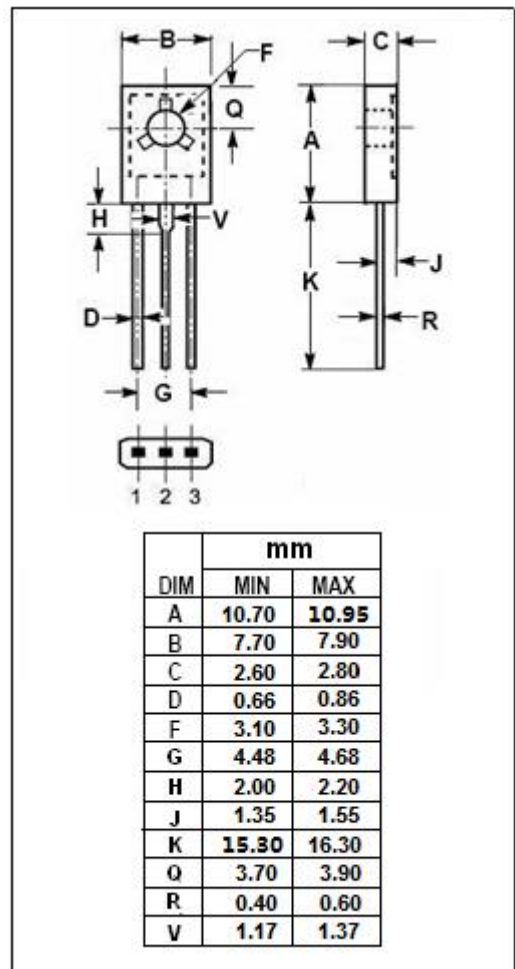
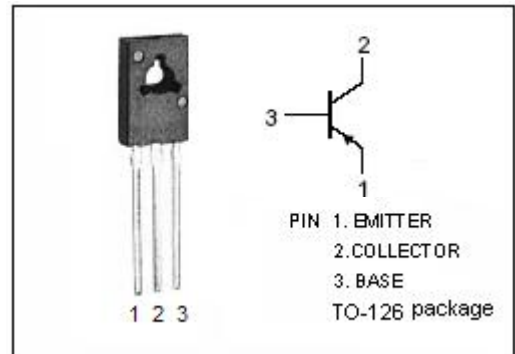
- Designed for use as audio amplifiers and drivers utilizing complementary or quasi complementary circuits.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-50	V
$V_{CEO}$	Collector-Emitter Voltage	-50	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current-Continuous	-1.0	A
$I_B$	Base Current-Continuous	-0.2	A
$P_C$	Collector Power Dissipation @ $T_a=25^\circ\text{C}$	1.0	W
	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	10	
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	12.5	$^\circ\text{C/W}$



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**ELECTRICAL CHARACTERISTICS**

 T<sub>C</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-Emitter Sustaining Voltage	I <sub>C</sub> = -10mA ; I <sub>B</sub> =0	-50			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -0.5A; I <sub>B</sub> = -50mA			-0.5	V
V <sub>BE(on)</sub>	Base-Emitter On Voltage	I <sub>C</sub> = -0.5A; V <sub>CE</sub> = -2V			-1.0	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -50V; I <sub>E</sub> = 0 V <sub>CB</sub> = -50V; I <sub>E</sub> = 0, T <sub>C</sub> =125°C			-0.1 -10	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -5V; I <sub>C</sub> =0			-10	μ A
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = -5mA ; V <sub>CE</sub> = -2V	25			
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = -0.5A ; V <sub>CE</sub> = -2V	25			
h <sub>FE-3</sub>	DC Current Gain	I <sub>C</sub> = -0.15A ; V <sub>CE</sub> = -2V	40		250	

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