

**isc Silicon NPN Power Transistor**
**2SC2578**
**DESCRIPTION**

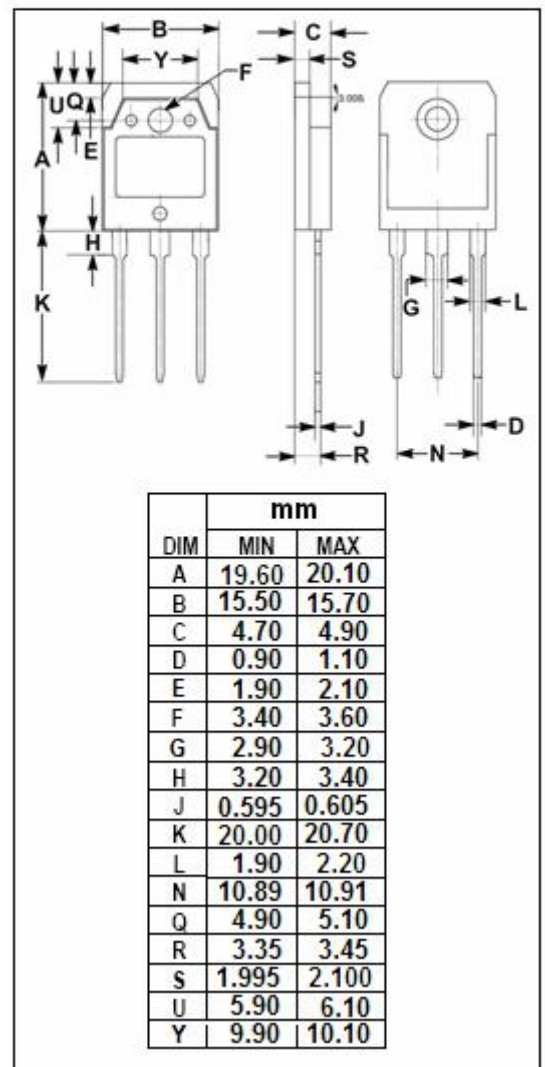
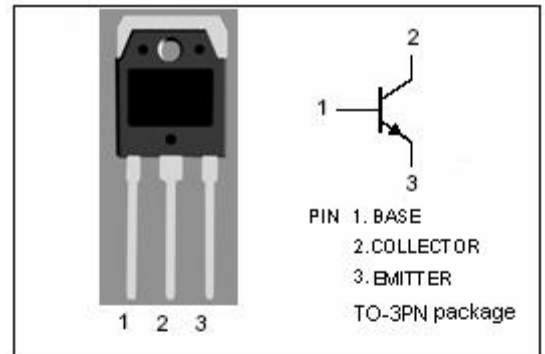
- Collector-Emitter Breakdown Voltage-  
 $V_{(BR)CEO} = 100V(\text{Min})$
- Good Linearity of  $h_{FE}$
- Complement to Type 2SA1103
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for audio power amplifier applications

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	140	V
$V_{CEO}$	Collector-Emitter Voltage	140	V
$V_{EBO}$	Emitter-Base Voltage	6	V
$I_C$	Collector Current-Continuous	7	A
$I_B$	Base Current-Continuous	3	A
$P_C$	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	70	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



## isc Silicon NPN Power Transistor

2SC2578

## ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>c</sub> = 30mA; I <sub>B</sub> = 0	140			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>c</sub> = 3A; I <sub>B</sub> = 0.3A			1.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 100V; I <sub>E</sub> = 0			10	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 6V; I <sub>C</sub> = 0			10	μ A
h <sub>FE</sub>	DC Current Gain	I <sub>c</sub> = 3A; V <sub>CE</sub> = 4V	50			
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>E</sub> = -0.5A; V <sub>CE</sub> = 12V		20		MHz
C <sub>OB</sub>	Output Capacitance	I <sub>E</sub> = 0; V <sub>CB</sub> = 10V; f= 1.0MHz		150		pF

◆ h<sub>FE</sub> Classifications

O	P	Y
50-100	70-140	90-180

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