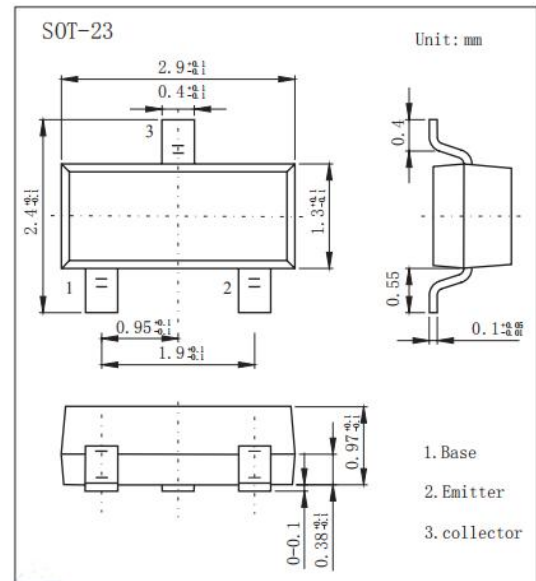


**isc Silicon NPN Power Transistor**
**8050**
**DESCRIPTION**

- With SOT-23 packaging
- High collector-base voltage
- Low saturation voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Audio output stage and converters/inverters circuits


**ABSOLUTE MAXIMUM RATINGS(Ta=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CBO</sub>	Collector-Base Voltage	40	V
V <sub>CEO</sub>	Collector-Emitter Voltage	25	V
V <sub>EBO</sub>	Emitter-Base Voltage	5	V
I <sub>C</sub>	Collector Current-Continuous	1.5	A
P <sub>C</sub>	Collector Power Dissipation @ T <sub>C</sub> =25°C	0.3	W
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C

**isc Silicon NPN Power Transistor****8050****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$BV_{CBO}$	Collector-Base Breakdown Voltage	$I_C=0.1\text{mA}; I_E=0$	40			V
$BV_{CEO}$	Collector-Emitter Breakdown Voltage	$I_C=1\text{mA}; I_B=0$	25			V
$BV_{EBO}$	Emitter-Base Breakdown Voltage	$I_E=0.1\text{mA}; I_C=0$	5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=0.8\text{A}; I_B=0.08\text{A}$			0.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=0.8\text{A}; I_B=0.08\text{A}$			1.2	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}=40\text{V}; I_E=0$			0.1	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}=5\text{V}; I_C=0$			0.1	$\mu\text{A}$
$H_{FE-1}$	DC Current Gain	$I_C=100\text{mA}; V_{CE}=1\text{V}$	120		400	
$h_{FE-2}$	DC Current Gain	$I_C=800\text{mA}; V_{CE}=1\text{V}$	40			

**Classification of  $h_{FE}$** 

Rank	L	H	J
Range	120-200	144-202	300-400

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