

isc Silicon PNP Power Transistor

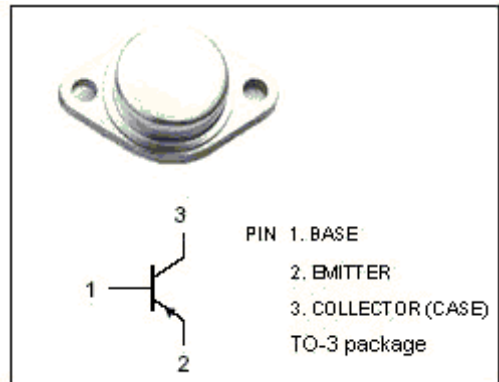
2SA680

DESCRIPTION

- High Power Dissipation-  
:  $P_C = 100W(\text{Max.}) @ T_C = 25^\circ C$
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -100V(\text{Min.})$
- Complement to Type 2SC1080

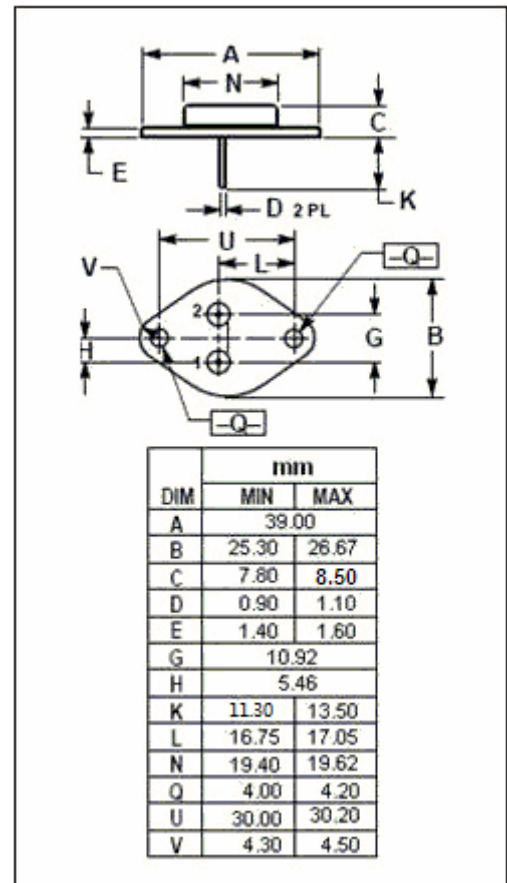
APPLICATIONS

- Designed for audio power amplifier applications.



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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-100	V
$V_{CEO}$	Collector-Emitter Voltage	-100	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current-Continuous	-12	A
$I_E$	Emitter Current-Continuous	12	A
$P_C$	Collector Power Dissipation @ $T_C = 25^\circ C$	100	W
$T_j$	Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature	-65~150	$^\circ C$



**isc Silicon PNP Power Transistor****2SA680****ELECTRICAL CHARACTERISTICS****T<sub>j</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> = -10mA ; I <sub>B</sub> = 0	-100			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = -1mA ; I <sub>C</sub> = 0	-5			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -10A ; I <sub>B</sub> = -1A			-3.0	V
V <sub>BE(on)</sub>	Base-Emitter On Voltage	I <sub>C</sub> = -10A ; V <sub>CE</sub> = -5V			-2.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -50V ; I <sub>E</sub> = 0			-0.1	mA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -5V ; I <sub>C</sub> = 0			-0.1	mA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = -2A ; V <sub>CE</sub> = -5V	40		140	
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = -7A ; V <sub>CE</sub> = -5V	15			
C <sub>OB</sub>	Output Capacitance	V <sub>CB</sub> = -10V ; f <sub>test</sub> = 1MHz		900		pF
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = -2A ; V <sub>CE</sub> = -5V		6		MHz

◆ **h<sub>FE-1</sub> Classifications**

R	Y
40-80	70-140