

isc Silicon NPN Transistor

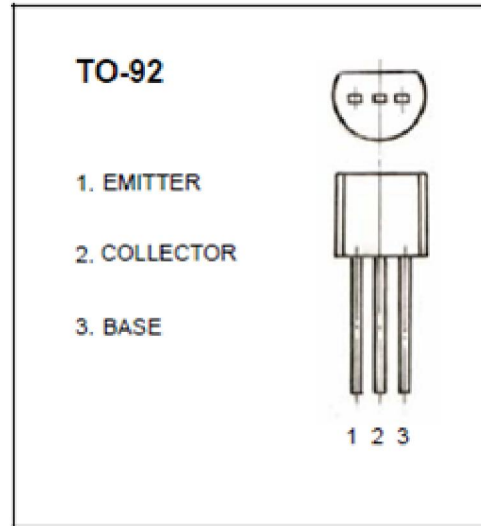
2SC2120

DESCRIPTION

- High $h_{FE(1)}=100-320$
- 1 Watts Amplifier Applications
- Complement to Type 2SA950

APPLICATIONS

- Audio power amplifier Applications



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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	35	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Curren	800	mA
I_B	Base Curren	160	mA
P_C	Collector Power Dissipation @ $T_c=25^{\circ}C$	600	mW
T_J	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}C$

isc Silicon NPN Transistor**2SC2120****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=10\text{mA}; I_B=0$	30			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=500\text{mA}; I_B=20\text{mA}$			0.5	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C=10\text{mA}; V_{CE}=1\text{V}$	0.5		0.8	V
I_{CBO}	Emitter Cutoff Current	$V_{CB}=35\text{V}; I_E=0$			0.1	μA
I_{EBO}	Collector Cutoff Current	$V_{EB}=5\text{V}; I_C=0$			0.1	μA
$h_{FE(1)}$	DC Current Gain	$I_C=0.1\text{A}; V_{CE}=1\text{V}$	100		320	
$h_{FE(2)}$	DC Current Gain	$I_C=0.7\text{A}; V_{CE}=1\text{V}$	35			
f_T	Current-Gain—Bandwidth Product	$I_C=10\text{mA}; V_{CE}=5\text{V}; f=100\text{MHz}$		120		MHz
C_{ob}	Collector Output Capacitance	$V_{CB}=10\text{V}; I_E=0; f=1\text{MHz}$		13		pF

◆ $h_{FE(1)}$ Classifications

O	Y
100-200	160-320