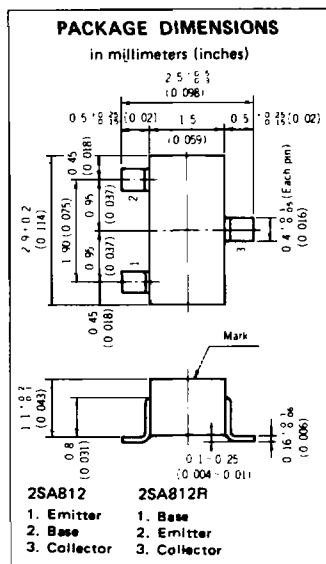


2SA812, 2SA812R

Audio Frequency, General Purpose Amplifier PNP Silicon Epitaxial Transistor



- Complementary to 2SC1623.
- High DC Current Gain: $h_{FE}=200$ TYP. ($V_{CE}=-6.0V$, $I_C=-1.0mA$)
- High Voltage: $V_{CEO}=-50V$

ABSOLUTE MAXIMUM RATINGS

Maximum Voltages and Current ($T_a=25^\circ C$)

Collector to Base Voltage	V_{CBO}	-60	V
Collector to Emitter Voltage	V_{CEO}	-50	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current (DC)	I_C	-100	mA

Maximum Power Dissipation

Total Power Dissipation at $25^\circ C$ Ambient Temperature	P_T	150	mW
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Maximum Temperatures

Junction Temperature	T_j	125	$^\circ C$
Storage Temperature Range	T_{stg}	-55 to +125	$^\circ C$

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Collector Cutoff Current	I_{CBO}			-0.1	μA	$V_{CB}=-60V$, $I_E=0$
Emitter Cutoff Current	I_{EBO}			-0.1	μA	$V_{EB}=-5.0V$, $I_C=0$
DC Current Gain	h_{FE}	60	200	600		$V_{CE}=-6.0V$, $I_C=-1.0mA$ *
Collector Saturation Voltage	$V_{CE(sat)}$		-0.18	-0.3	V	$I_C=-100mA$, $I_B=-10mA$
Base-Emitter Voltage	V_{BE}	-0.55	-0.62	-0.65	V	$V_{CE}=-6.0V$, $I_C=-1.0mA$
Gain Bandwidth Product	f_T		180		MHz	$V_{CE}=-6.0V$, $I_E=10mA$
Output Capacitance	C_{ob}		4.2		pF	$V_{CB}=-10V$, $I_E=0$, $f=1.0MHz$

* Pulsed. $PW \leq 350\mu s$, duty cycle $\leq 2\%$

h_{FE} Classification

MARK	2SA812	M3	M4	M5	M6	M7
	2SA812R	3M	4M	5M	6M	7M
h_{FE}		60 - 120	90 - 180	135 - 270	200 - 400	300 - 600

2SA812, 2SA812R

TYPICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

