



**PRODUCT NAME** : 2SA992 PNP General Purpose Transistor

**PRICE** : Rs 20.00

**SKU** : RM2115

## DESCRIPTION

## Features

- Collector-Emitter Volt ( $V_{ce0}$ ): 120V
- Collector-Base Volt ( $V_{cb0}$ ): 120V
- Collector Current ( $I_c$ ): 0.05A
- $h_{fe}$ : 200-800 @ 1mA
- Power Dissipation ( $P_{tot}$ ): 500mW
- Current-Gain-Bandwidth ( $f_{total}$ ): 100MHz
- Type: PNP



# NEC

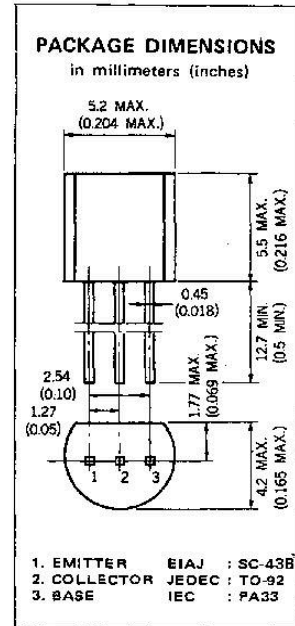
## PNP SILICON TRANSISTOR **2SA992**

**DESCRIPTION** The 2SA992 is best for use as the middle range amplifier in Hi-Fi stereo control amplifiers, power amplifiers, and etc.

- FEATURES**
- High Voltage.  $V_{CEO} : -120\text{ V}$
  - Low Output Capacitance.  $C_{ob} : 2.0\text{ pF TYP. } (V_{CB} = -30\text{ V})$
  - High  $h_{FE}$ .  $h_{FE} : 500\text{ TYP. } (V_{CE} = -6.0\text{ V, } I_C = -1.0\text{ mA})$
  - Super Low Noise.  $NV : 25\text{ mV TYP. } (See\ test\ circuit.)$
  - Complementary to 2SC1845.

**ABSOLUTE MAXIMUM RATINGS**

Maximum Temperatures	
Storage Temperature	-55 to +125 °C
Junction Temperature	+125 °C Maximum
Maximum Power Dissipation ( $T_a = 25\text{ °C}$ )	
Total Power Dissipation	500 mW
Maximum Voltages and Currents ( $T_a = 25\text{ °C}$ )	
$V_{CBO}$ Collector to Base Voltage	-120 V
$V_{CEO}$ Collector to Emitter Voltage	-120 V
$V_{EBO}$ Emitter to Base Voltage	-5.0 V
$I_C$ Collector Current	-50 mA
$I_B$ Base Current	-10 mA



**ELECTRICAL CHARACTERISTICS ( $T_a = 25\text{ °C}$ )**

SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
$h_{FE1}$	DC Current Gain	150	500	-	-	$V_{CE} = -6.0\text{ V, } I_C = -0.1\text{ mA}$
$h_{FE2}$	DC Current Gain	200	500	800	-	$V_{CE} = -6.0\text{ V, } I_C = -1.0\text{ mA}$
$f_T$	Gain Bandwidth Product	50	100	-	MHz	$V_{CE} = -6.0\text{ V, } I_E = 1.0\text{ mA}$
$C_{ob}$	Output Capacitance	-	2.0	3.0	pF	$V_{CB} = -30\text{ V, } I_E = 0, f = 1.0\text{ MHz}$
$NV$	Noise Voltage	-	25	40	mV	$V_{CE} = -5.0\text{ V, } I_C = -1.0\text{ mA, } R_G = 100\text{ k}\Omega$ $G_v = 80\text{ dB, } f = 10\text{ Hz to } 1.0\text{ kHz}$
$I_{CBO}$	Collector Cutoff Current	-	-	-50	nA	$V_{CB} = -120\text{ V, } I_E = 0$
$I_{EBO}$	Emitter Cutoff Current	-	-	-50	nA	$V_{EB} = -5.0\text{ V, } I_C = 0$
$V_{BE}$	Base to Emitter Voltage	-0.55	-0.61	-0.65	V	$V_{CE} = -6.0\text{ V, } I_C = -1.0\text{ mA}$
$V_{CE(sat)}$	Collector Saturation Voltage	-	-0.09	-0.30	V	$I_C = -10\text{ mA, } I_B = -1.0\text{ mA}$

**Classification of  $h_{FE2}$**

Rank	P	F	E
Range	200 - 400	300 - 600	400 - 800

$h_{FE}$  Test Conditions :  $V_{CE} = -6.0\text{ V, } I_C = -1.0\text{ mA}$

