



**PRODUCT NAME :** 2SA1316 PNP General Purpose Transistor (Pack of 5)

**PRICE :** Rs 20.00

**SKU :** RM2137



## DESCRIPTION

NOTE: THE PRODUCT MAY BE DIFFERENT FROM IMAGE SHOWN. Copyrights by Robomart.com

## Features

- Collector-Emitter Volt ( $V_{ce0}$ ): 80V
- Collector-Base Volt ( $V_{cb0}$ ): 80V
- Collector Current ( $I_c$ ): 0.1A
- $h_{fe}$ : 200-700 @ 2mA
- Power Dissipation ( $P_{tot}$ ): 400mW
- Current-Gain-Bandwidth ( $f_{total}$ ): 50MHz
- Type: PNP

**TOSHIBA**

**2SA1316**

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

# 2SA1316

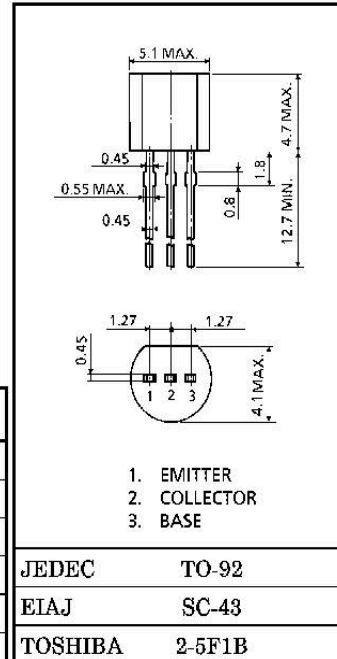
FOR LOW NOISE AUDIO AMPLIFIER APPLICATIONS AND  
 RECOMMENDED FOR THE FIRST STAGES OF MC HEAD AMPLIFIERS

- Very Low Noise in the Region of Low Signal Source Impedance  
 Equivalent Input Noise Voltage :  $E_n = 0.6nV / \sqrt{Hz}$  (Typ.)
- Low Pulse Noise. Low 1/f Noise
- Low Base Spreading Resistance :  $r_{bb'} = 2.0\Omega$  (Typ.)
- Complementary to 2SC3329

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V <sub>CB0</sub>	-80	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-80	V
Emitter-Base Voltage	V <sub>EB0</sub>	-5	V
Collector Current	I <sub>C</sub>	-100	mA
Base Current	I <sub>B</sub>	-20	mA
Collector Power Dissipation	P <sub>C</sub>	400	mW
Junction Temperature	T <sub>j</sub>	125	°C
Storage Temperature Range	T <sub>stg</sub>	-55~125	°C

Unit in mm



Weight : 0.21g

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1997-04-10 1/4

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**2SA1316**

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	ICBO	V <sub>CB</sub> = -80V, I <sub>E</sub> = 0	—	—	-0.1	μA
Emitter Cut-off Current	IEBO	V <sub>EB</sub> = -5V, I <sub>C</sub> = 0	—	—	-0.1	μA
Collector-Emitter Breakdown Voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = -1mA, I <sub>B</sub> = 0	-80	—	—	V
DC Current Gain	h <sub>FE</sub> (Note)	V <sub>CE</sub> = -6V, I <sub>C</sub> = -2mA	200	—	700	
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = -10mA, I <sub>B</sub> = -1mA	—	—	-0.1	V
Base-Emitter Voltage	V <sub>BE</sub>	V <sub>CE</sub> = -6V, I <sub>C</sub> = -2mA	—	-0.6	—	V
Base Spreading Resistance	r <sub>bb'</sub>	V <sub>CE</sub> = -6V, I <sub>C</sub> = -1mA, f = 100MHz	—	2.0	—	Ω
Transition Frequency	f <sub>T</sub>	V <sub>CE</sub> = -6V, I <sub>C</sub> = -1mA, f = 100MHz	—	50	—	MHz
Collector Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> = -10V, I <sub>E</sub> = 0, f = 1MHz	—	6.2	—	pF
Noise Figure	NF	V <sub>CE</sub> = -6V, I <sub>C</sub> = -0.1mA f = 10Hz, R <sub>G</sub> = 10kΩ	—	1	6	dB
		V <sub>CE</sub> = -6V, I <sub>C</sub> = -0.1mA f = 1kHz, R <sub>G</sub> = 10kΩ	—	0.5	2	
		V <sub>CE</sub> = -6V, I <sub>C</sub> = -0.1mA f = 1kHz, R <sub>G</sub> = 100Ω	—	2.5	—	

Note : h<sub>FE</sub> Classification GR : 200~400, BL : 350~700

