

**2SA 1266**  
**2SA 1266** (L)

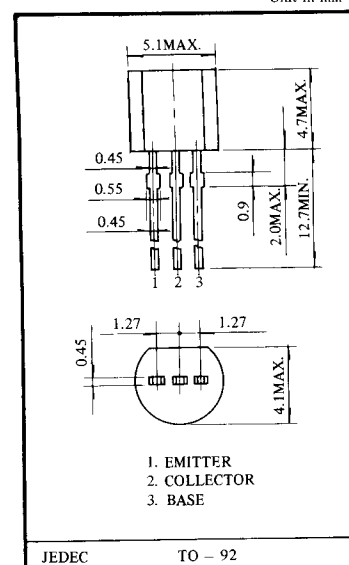
# SILICON PNP TRANSISTOR EPITAXIAL PLANAR TYPE (PCT PROCESS)

## APPLICATIONS

- Low Frequency Amplifier
- Low Noise Amplifier

## FEATURES

- Excellent  $h_{FE}$  Linearity,  $h_{FE}(0.1mA)/h_{FE}(2mA) = 0.95$  (Typ.)
- Excellent Safe Operation Area
- Low Noise 2SA1266 NF=1dB (TYP), 10dB (Max.)  
 2SA1266(L) NF=0.2dB (TYP), 3dB (Max.)
- Complementary to the 2SC3198/2SC3198(L)



## ■ MAXIMUM RATINGS ( $T_a = 25^\circ\text{C}$ )

CHARACTERISTIC	SYMBOL	RATING	UNIT	CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CB0}$	-50	V	Emitter Current	$I_E$	150	mA
Collector-Emitter Voltage	$V_{CE0}$	-50	V	Collector Power Dissipation	$P_c$	400	mW
Emitter-Base Voltage	$V_{EB0}$	-5	V	Junction Temperature	$T_j$	125	$^\circ\text{C}$
Collector Current	$I_c$	-150	mA	Storage Temperature Range	$T_{stg}$	-55~125	$^\circ\text{C}$

## ■ ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ\text{C}$ )

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut off Current	$I_{CB0}$	$V_{CB} = -50V, I_E = 0$	-	-	-0.1	$\mu\text{A}$
Emitter Cut off Current	$I_{EB0}$	$V_{EB} = -5V, I_c$	-	-	-0.1	$\mu\text{A}$
DC Current Gain(1)	$h_{FE(1)}$	$V_{CE} = -6V, I_c = -2mA$	70	-	400	-
DC Current Gain(2)	$h_{FE(2)}$	$V_{CE} = -6V, I_c = -150mA$	25	-	-	-
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_c = -100mA, I_b = -10mA$	-	-0.1	-0.3	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_c = -100mA, I_b = -10mA$	-	-	-1.1	V
Transition Frequency	$f_T$	$V_{CE} = -10V, I_E = 1mA$	80	-	-	MHz
Output Capacitance	$C_{ob}$	$V_{CB} = -10V, I_c = 0, f = 1MHz$	-	4	7	pF
Base Spreading Resistance	$r_{bb'}$	$V_{CB} = -10V, I_c = -1mA, f = 30MHz$	-	30	-	$\Omega$
Noise Figure	2SA1266	$V_{CE} = -6V, I_c = 0.1mA$ $R_g = 10k\Omega, f = 1KHz$	-	1.0	10	dB
	2SA1266(L)		-	0.2	3	

■ NOTE: According to  $h_{FE}$  (1), Classified as follows

O	70-140	Y	120~240	GR	200~400
---	--------	---	---------	----	---------