2SC3311, 2SC3311A

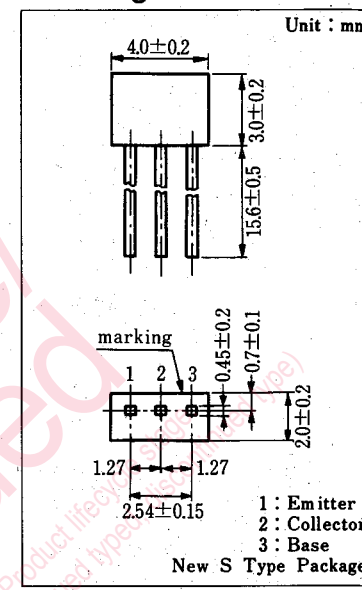
Silicon NPN Epitaxial Planar Type

For low-frequency amplification
Complementary pair with **2SA1309** and **2SA1309A**

■ Features

- Ideal for high-density mounting
- Automatic insertion by radial taping possible

■ Package Dimensions



■ Absolute Maximum Ratings (Ta=25°C)

Item		Symbol	Value	Unit
Collector-Base Voltage	2SC3311	V_{CBO}	30	V
	2SC3311A		60	
Collector-Emitter Voltage	2SC3311	V_{CEO}	25	V
	2SC3311A		50	
Emitter-Base Voltage		V_{EBO}	7	V
Peak Collector Voltage		I_{CP}	200	mA
Collector Current		I_C	100	mA
Collector Power Dissipation		P_C	300	mW
Junction Temperature		T_j	150	°C
Storage Temperature		T_{stg}	−55 ~ +150	°C

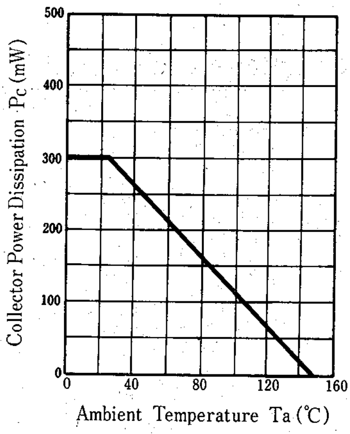
■ Electrical Characteristics (Ta=25°C)

Item		Symbol	Condition	min.	typ.	max.	Unit
Collector Cutoff Current		I_{CBO}	V_{CB}=10 V, I_E=0			0.1	μA
		I_{CEO}	V_{CE}=10 V, I_B=0			1	μA
Collector-Base Voltage	2SC3311	V_{CBO}	I_C=10 μA, I_E=0	30			V
	2SC3311A			60			
Collector-Emitter Voltage	2SC3311	V_{CEO}	I_C=2 mA, I_B=0	25			V
	2SC3311A			50			
Emitter-Base Voltage		V_{EBO}	I_E=10 μA, I_C=0	7			V
DC Current Gain		h_{FE}*	V_{CE}=10 V, I_C=2 mA	160		460	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	I_C=50 mA, I_B=5 mA			0.3	V
Transition Frequency		f_T	V_{CB}=10V, I_E=−1mA, f=200MHz		150		MHz
Collector Output Capacitance		C_{ob}	V_{CB}=10 V, I_E=0, f=1 MHz		3.5		pF

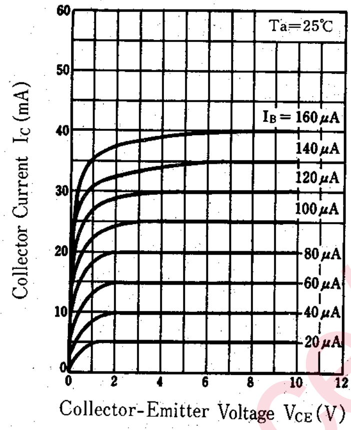
*h_{FE} Ranking

Rank	Q	R	S
h_{FE}	160 ~ 260	210 ~ 340	290 ~ 460

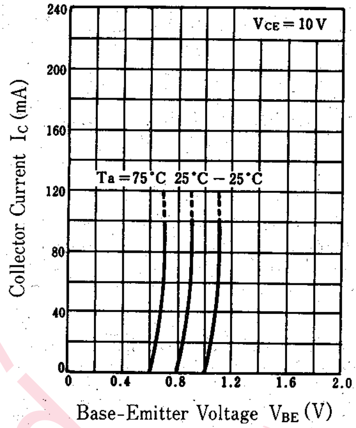
$P_C - Ta$



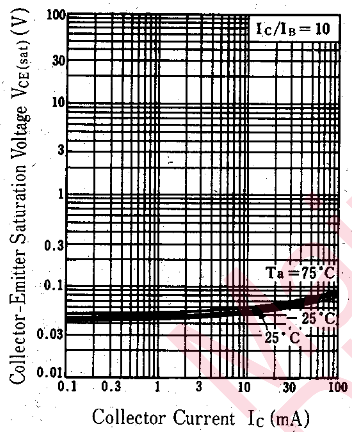
$I_C - V_{CE}$



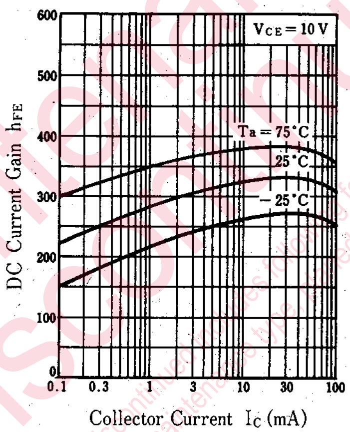
$I_C - V_{BE}$



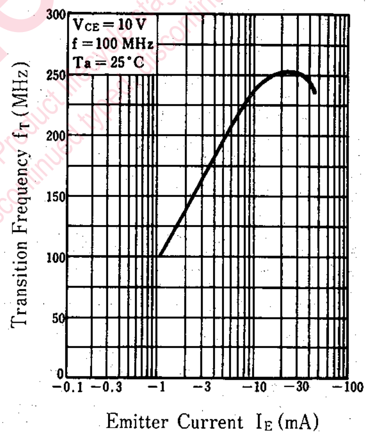
$V_{CE(sat)} - I_C$



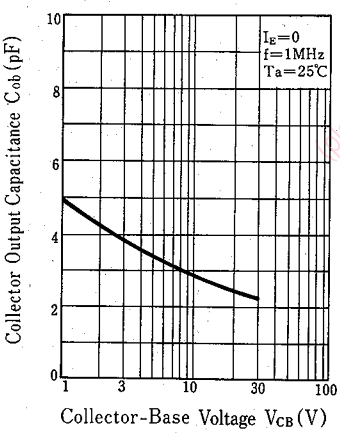
$h_{FE} - I_C$



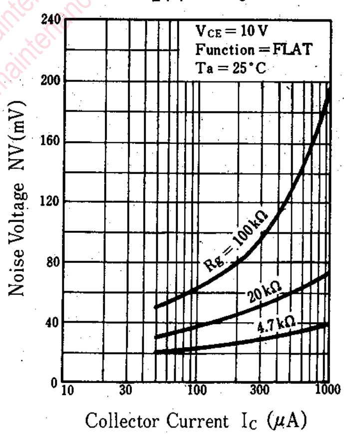
$f_T - I_E$



$C_{ob} - V_{CB}$



$NV - I_C$



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