

**2SC1570,
1571,
1571L**



2003A

NPN Epitaxial Planar Silicon Transistors

T-29-15

Very Low Noise Amp Applications

©431D

The 2SC1570, 1571, 1571L are developed as very low-noise transistors and are especially suited for use in equalizer first stage of high-grade type stereo sets.

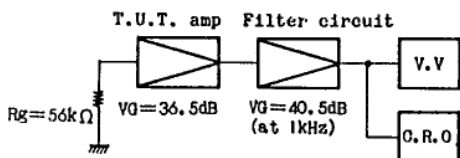
Absolute Maximum Ratings at Ta=25°C		2SC1570	2SC1571	2SC1571L	unit
Collector to Base Voltage	V _{CBO}	55	40	40	V
Collector to Emitter Voltage	V _{CEO}	50	35	35	V
Emitter to Base Voltage	V _{EBO}		5		V
Collector Current	I _C		100		mA
Allowable Power Dissipation	P _C		200		mW
Junction Temperature	T _J		125		°C
Storage Temperature	T _{stg}		-55 to +150		°C

Electrical Characteristics at Ta=25°C		min	typ	max	unit
Collector Cutoff Current	I _{CBO} V _{CB} =18V, I _E =0			0.1	uA
Emitter Cutoff Current	I _{EBO} V _{EB} =3V, I _C =0			0.1	uA
DC Current Gain	h _{FE} V _{CE} =6V, I _C =1mA		160*	960*	
Gain Bandwidth Product	f _T V _{CE} =6V, I _C =1mA		100		MHz
Output Capacitance	c _{ob} V _{CB} =6V, f=1MHz		3		pF
C-E Saturation Voltage	V _{CE(sat)} I _C =50mA, I _B =5mA			0.5	V
Base to Emitter Voltage	V _{BE} V _{CE} =2V, I _C =1mA	0.58	0.80		V
C-B Breakdown Voltage	V _{(BR)CBO} I _C =10uA, I _B =0			[C1570] 55	V
				[C1571, 1571L] 40	V
C-E Breakdown Voltage	V _{(BR)CEO} I _C =1mA, R _{BE} =∞			[C1570] 50	V
				[C1571, 1571L] 35	V
E-B Breakdown Voltage	V _{(BR)EBO} I _E =10uA, I _C =0			5	V
Noise Voltage	at test circuit [C1570, 1571]			40	mV
	V _{CC} =30V, I _C =1mA [C1571L]			65	mV
	R _g =56kohm, V _G =77dB (at 1kHz)				
Noise Peak Level	" " [C1570, 1571]			280	mV
	" " [C1571L]			450	mV

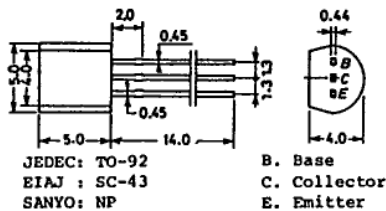
*:The 2SC1570, 1571, 1571L are classified by 1mA h_{FE} as follows:

160	F	320	280	G	560	480	H	960
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Noise Test Circuit



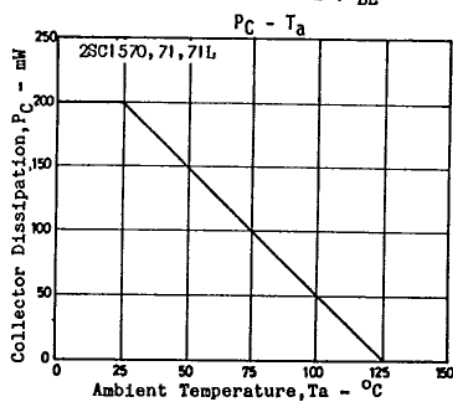
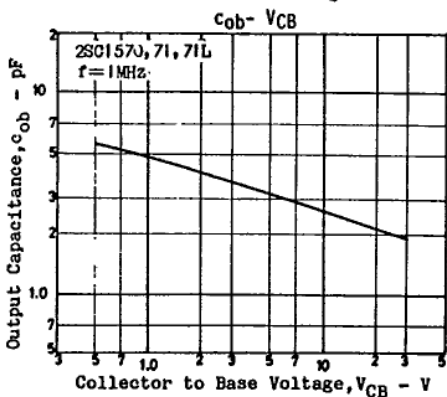
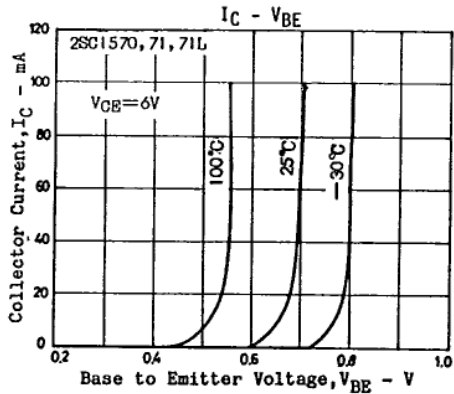
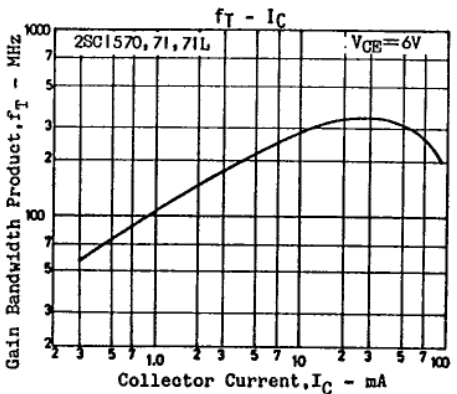
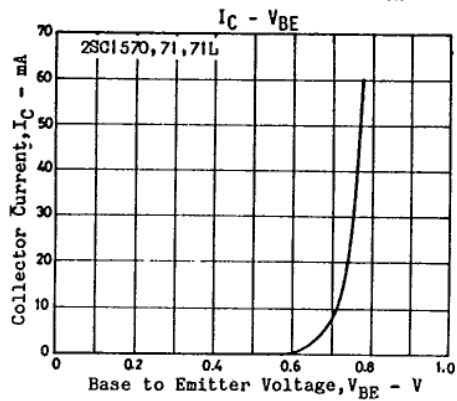
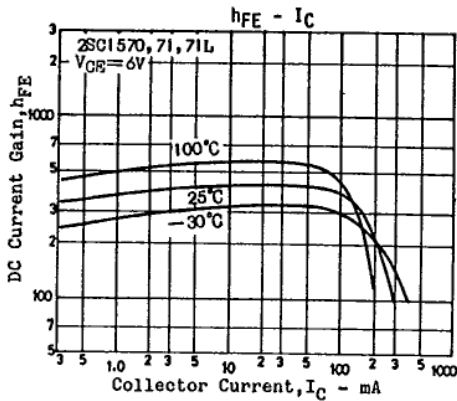
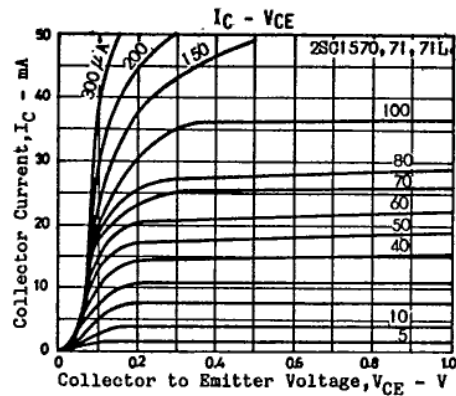
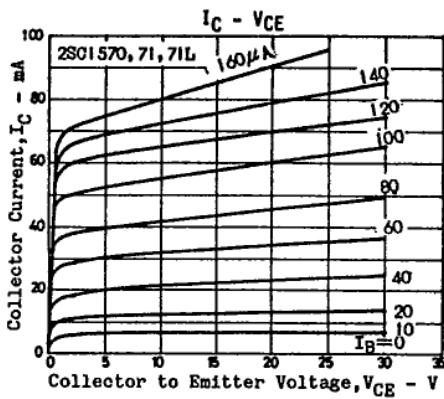
Case Outline 2003A (unit:mm)



4147KI/3185KI, TS No. 431-1/3

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