



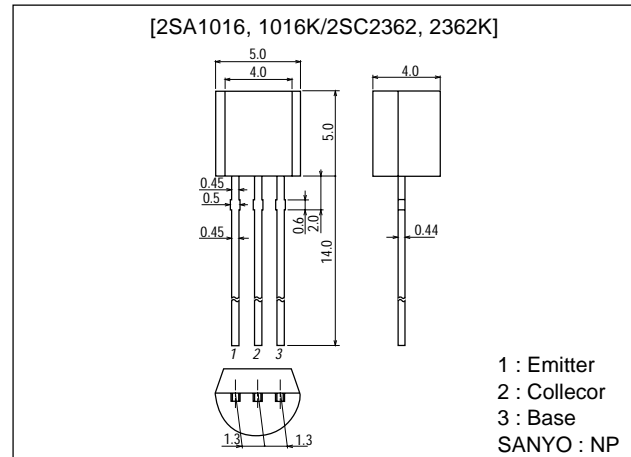
2SA1016, 1016K/2SC2362, 2362K

High-Voltage Low-Noise Amp Applications

Package Dimensions

unit:mm

2003B



() : 2SA1016, 1016K

Specifications

Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	2SA1016, 2SC2362	2SA1016K, 2SC2362K	Unit
Collector-to-Base Voltage	V_{CBO}		(-)120	(-)150	V
Collector-to-Emitter Voltage	V_{CEO}		(-)100	(-)120	V
Emitter-to-Base Voltage	V_{EBO}			(-)5	V
Collector Current	I_C			(-)50	mA
Collector Current (Pulse)	I_{CP}			(-)100	mA
Collector Dissipation	P_C			400	mW
Junction Temperature	T_j			125	$^\circ\text{C}$
Storage Temperature	T_{stg}			-55 to +125	$^\circ\text{C}$

Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=(-)80\text{V}, I_E=0$			(-)1.0	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=(-)4\text{V}, I_C=0$			(-)1.0	μA
DC Current Gain	h_{FE}	$V_{CE}=(-)6\text{V}, I_C=(-)1\text{mA}$	160*		960*	
Gain-Bandwidth Product	f_T	$V_{CE}=(-)6\text{V}, I_C=(-)1\text{mA}$		(110) 130		MHz
Output Capacitance	C_{ob}	$V_{CB}=(-)10\text{V}, f=1\text{MHz}$		(2,2) 1.8		pF

* : The 2SA1016, K/2SC2362, K are classified by 1mA h_{FE} as follows :

Continued on next page.

Rank	F	G	H
h_{FE}	160 to 320	280 to 560	480 to 960

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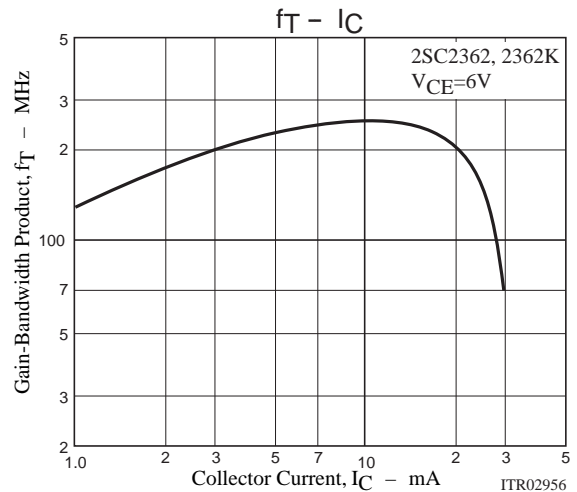
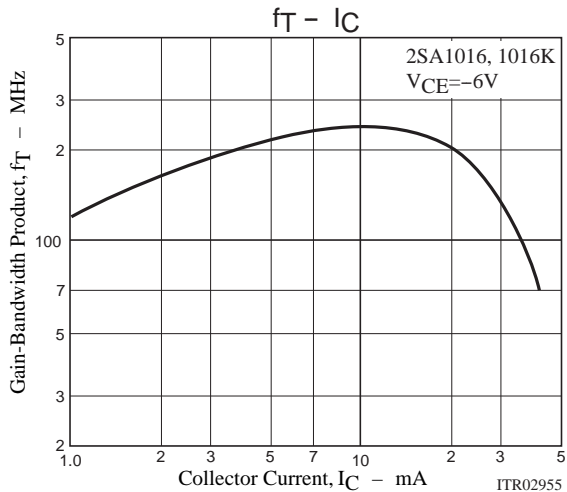
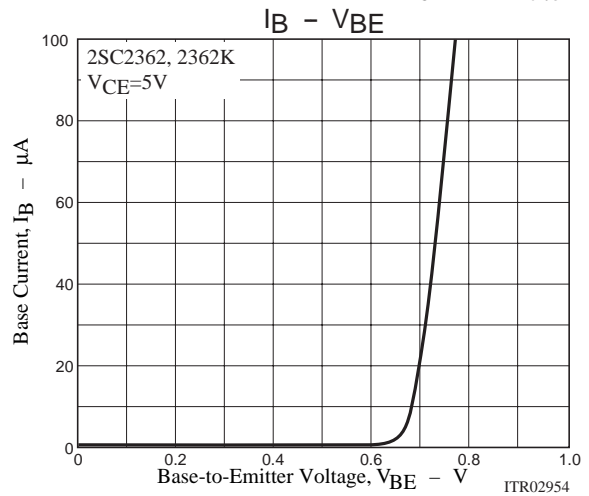
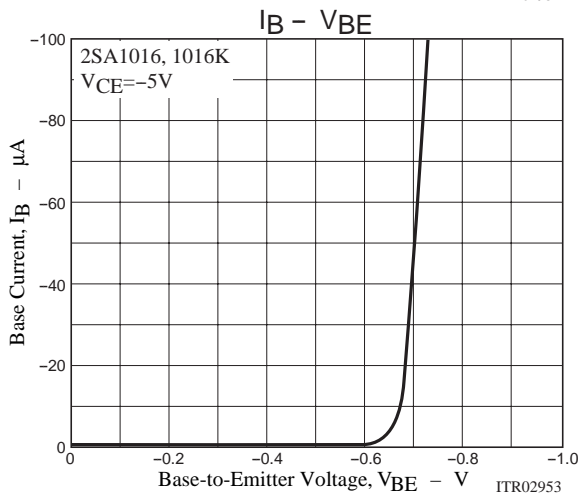
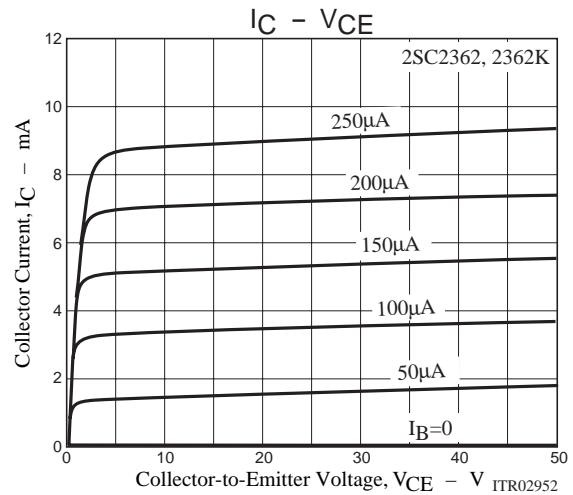
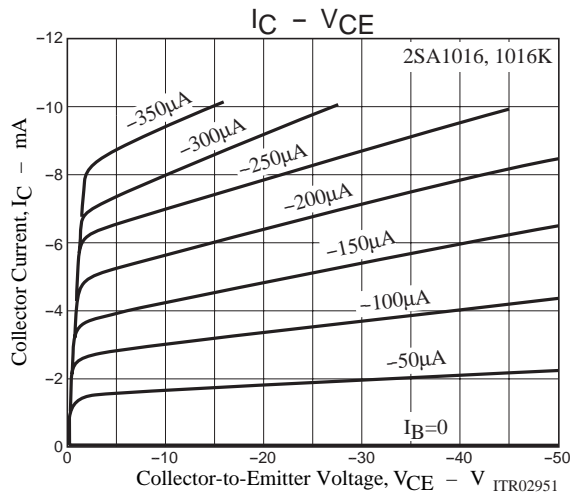
SANYO Electric Co., Ltd. Semiconductor Company

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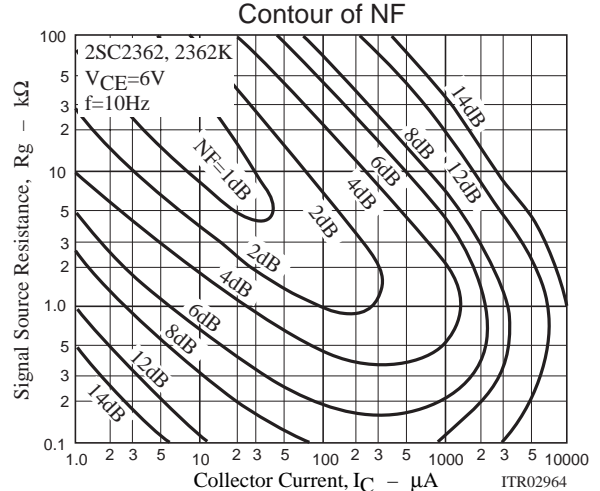
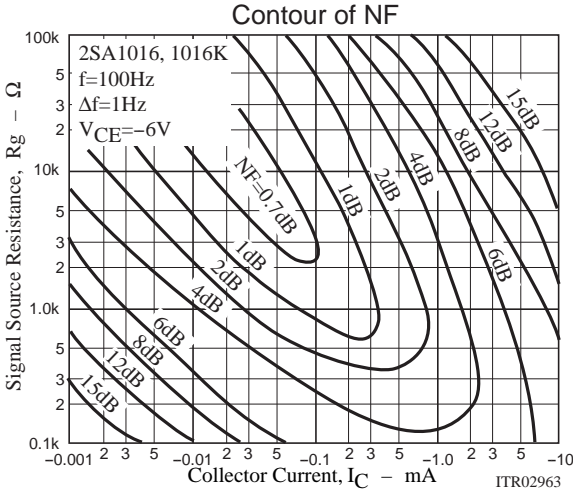
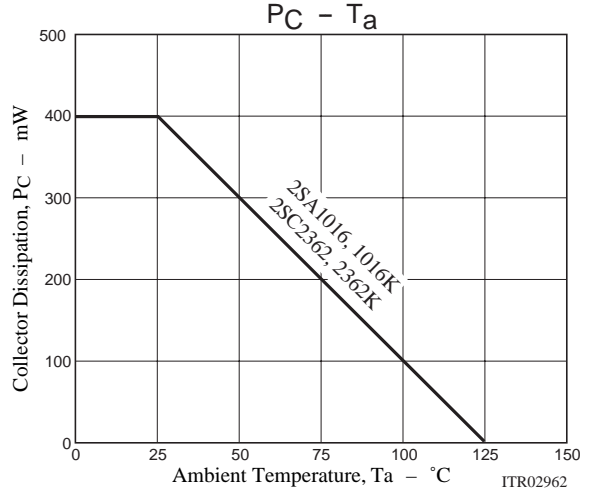
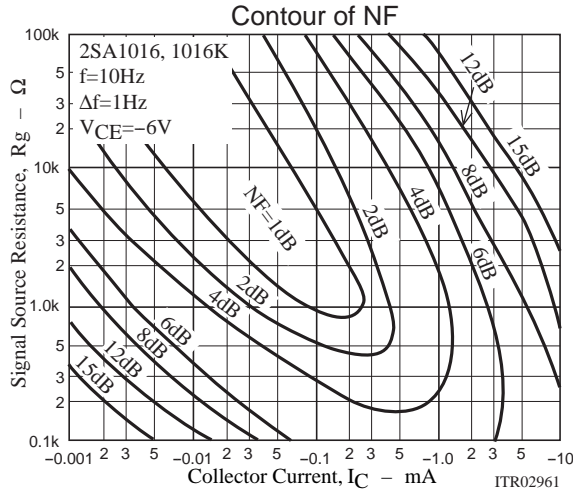
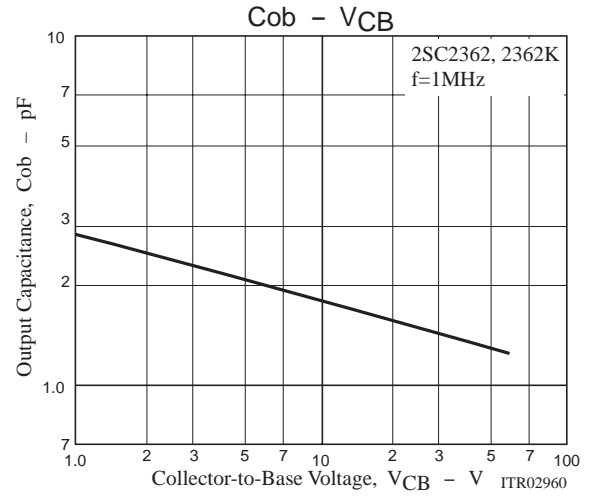
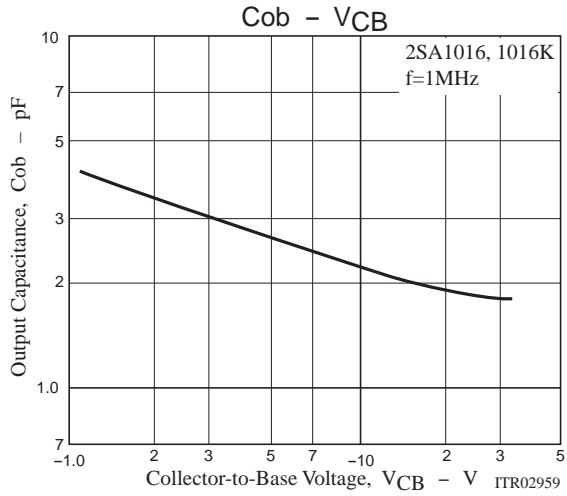
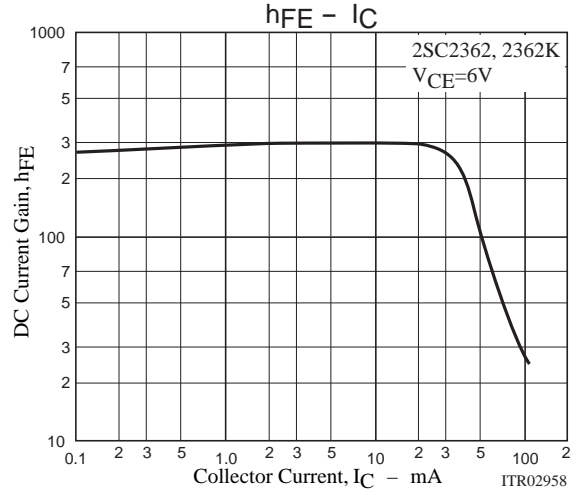
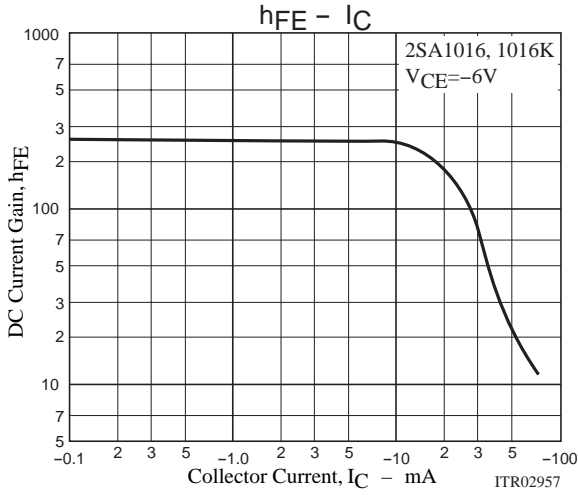
2SA1016, 1016K/2SC2362, 2362K

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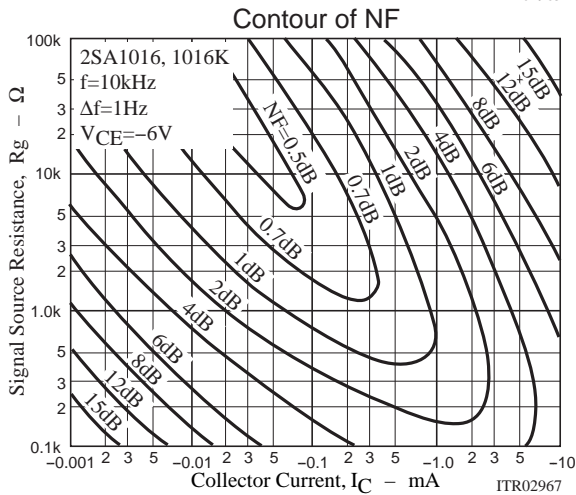
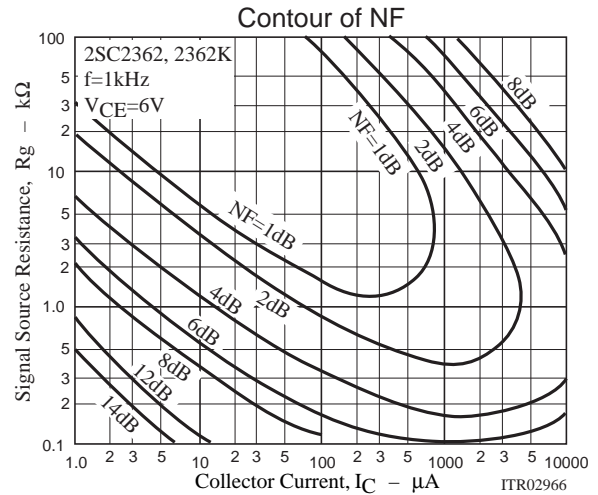
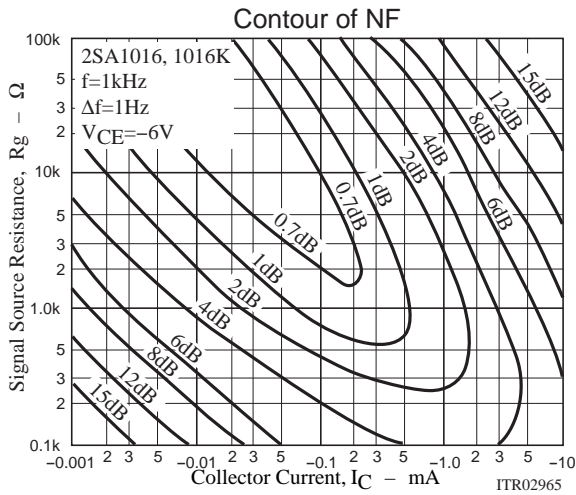
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)10\text{mA}, I_B=(-)1\text{mA}$			(-)0.5	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)10\mu\text{A}, I_E=0$ [A1016, C2362]	(-)120			V
		$I_C=(-)10\mu\text{A}, I_E=0$ [A1016K, C2362K]	(-)150			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1\text{mA}, R_{BE}=\infty$ [A1016, C2362]	(-)100			V
		$I_C=(-)1\text{mA}, R_{BE}=\infty$ [A1016K, C2362K]	(-)120			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)10\mu\text{A}, I_C=0$	(-)5			V
Noise Level	$V_{NO(ave)}$	$V_{CC}=30\text{V}, I_C=1\text{mA}, R_g=56\text{k}\Omega, V_G=77\text{dB}/1\text{kHz}$			35	mV
Noise Peak Level	$V_{NO(peak)}$	$V_{CC}=30\text{V}, I_C=1\text{mA}, R_g=56\text{k}\Omega, V_G=77\text{dB}/1\text{kHz}$			200	mV



2SA1016, 1016K/2SC2362, 2362K



2SA1016, 1016K/2SC2362, 2362K



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