



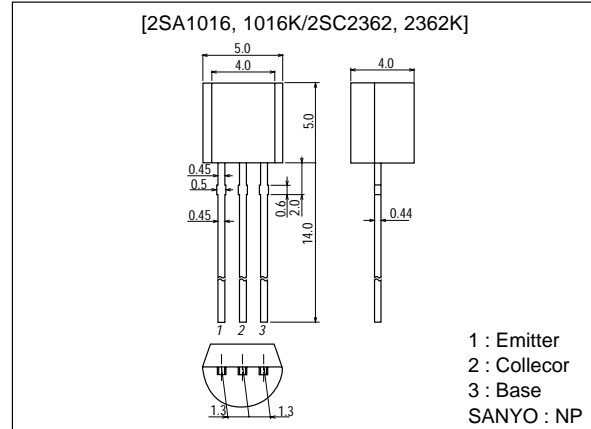
# 2SA1016, 1016K/2SC2362, 2362K

## 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	$V_{CB0}$		(-)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	$I_{CB0}$	$V_{CB} = (-)80\text{V}, I_E = 0$			(-)1.0	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = (-)4\text{V}, I_C = 0$			(-)1.0	$\mu\text{A}$
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 :

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

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■ SANYO assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all SANYO products described or contained herein.

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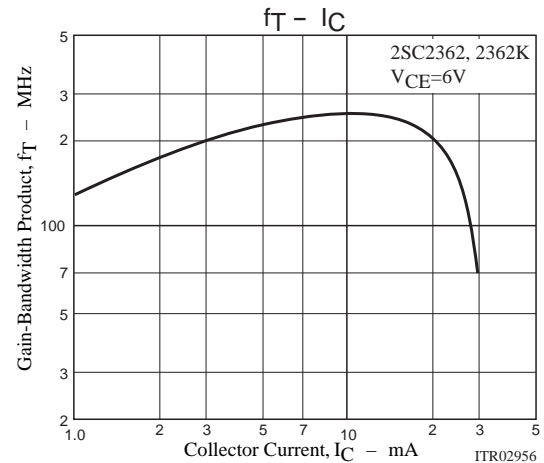
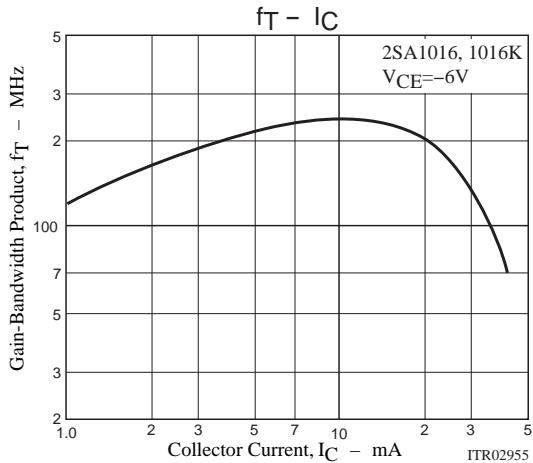
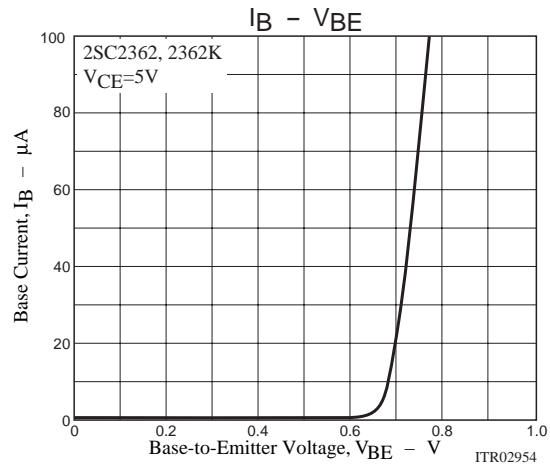
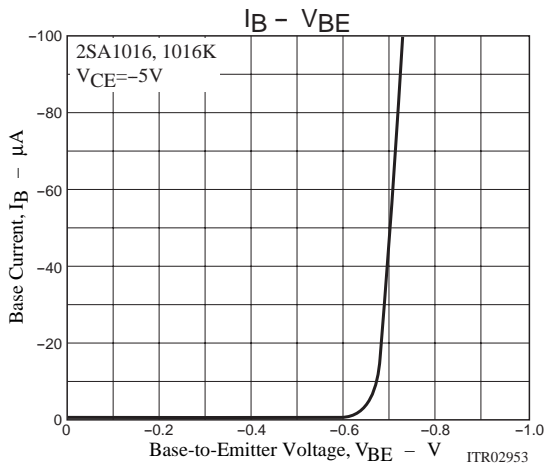
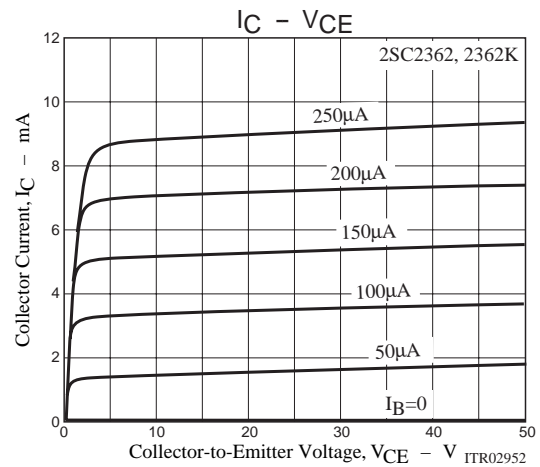
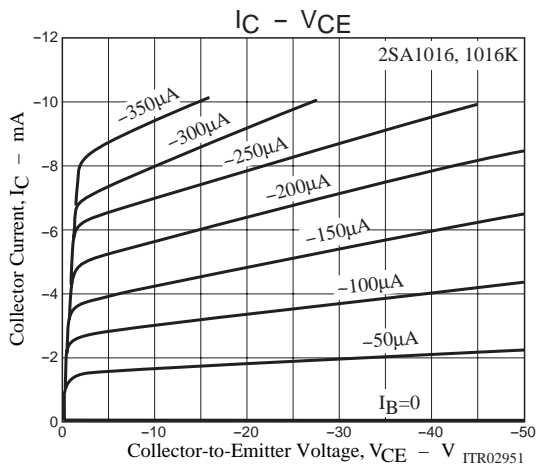
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70502TN (KT)/71598HA (KT)/3187AT/3075KI/1313KI No.572-1/4

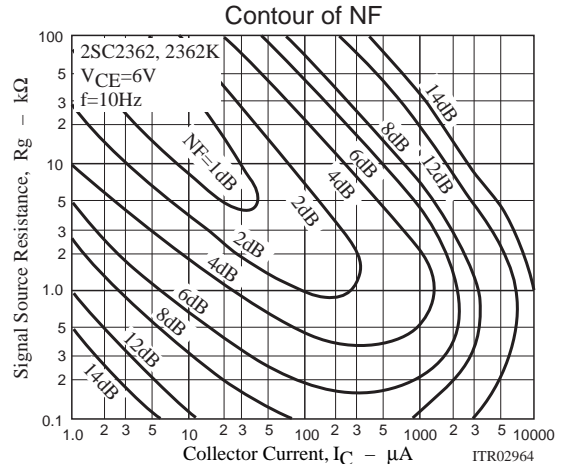
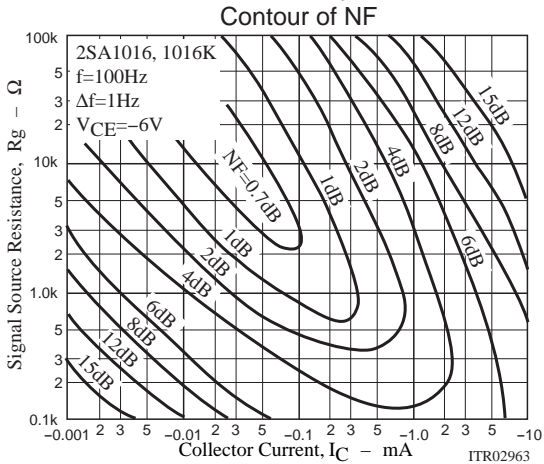
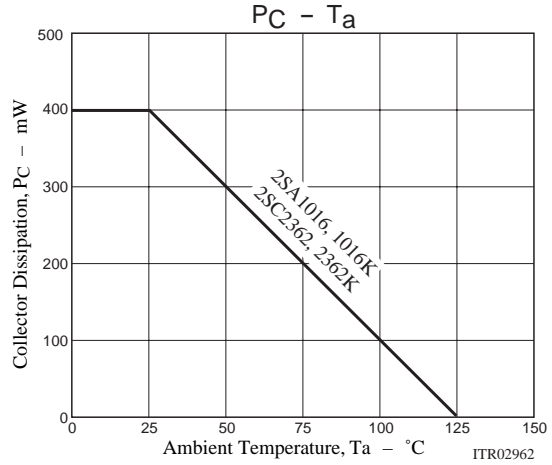
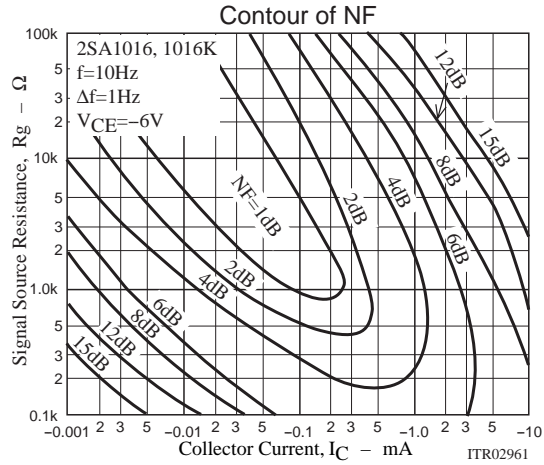
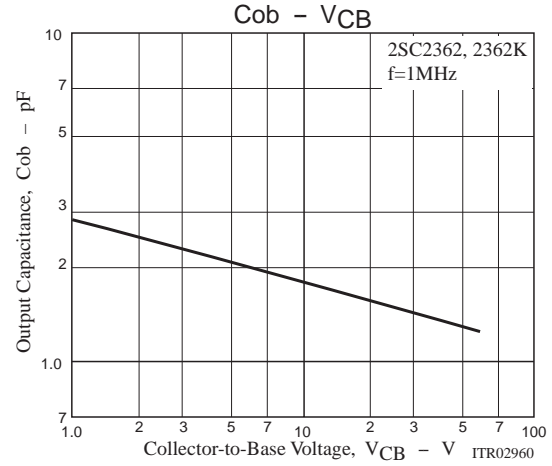
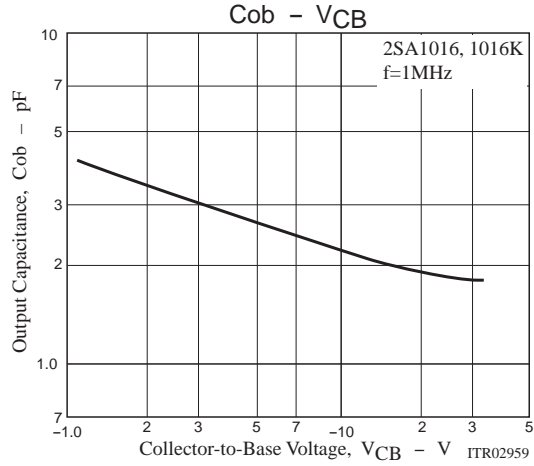
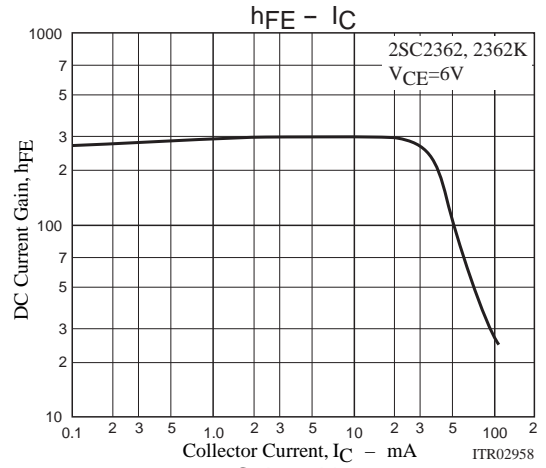
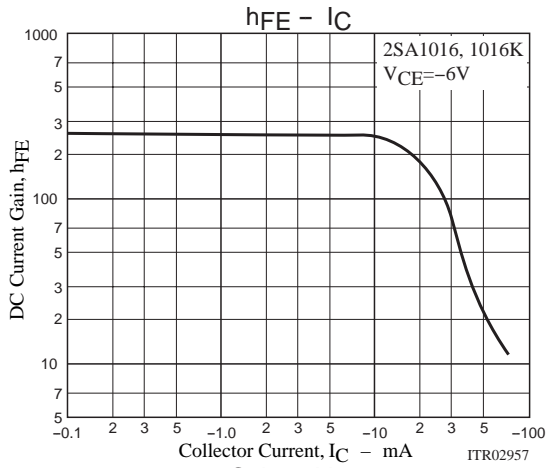
# 2SA1016, 1016K/2SC2362, 2362K

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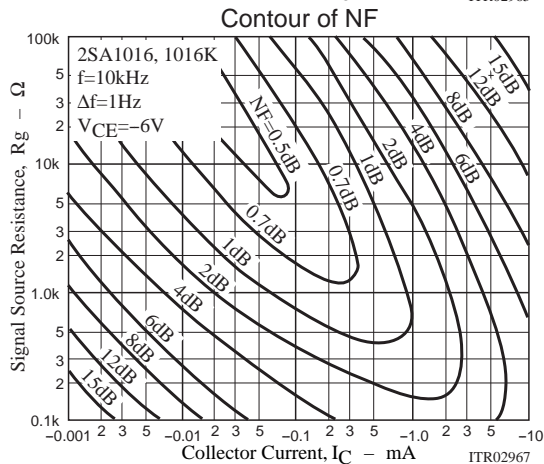
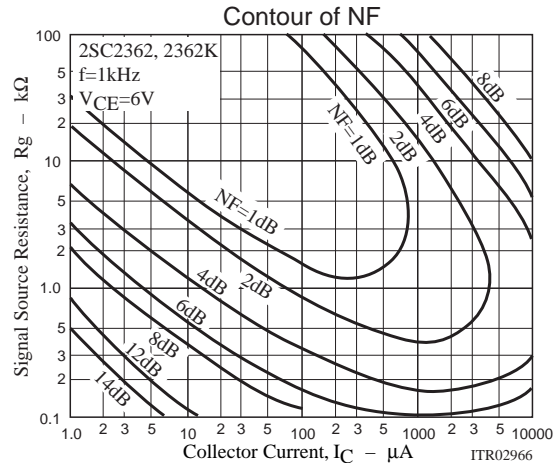
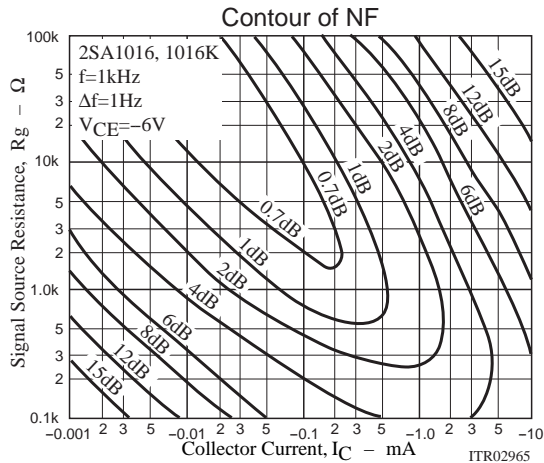
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)10\text{mA}, I_B=(-)1\text{mA}$			(-)0.5	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)10\mu\text{A}, I_E=0$ [A1016, C2362]	(-)120			V
		$I_C=(-)10\mu\text{A}, I_E=0$ [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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