

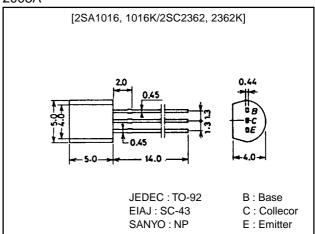
# 2SA1016, 1016K/2SC2362, 2362K

# **High-Voltage Low-Noise Amp Applications**

## **Package Dimensions**

unit:mm

2003A



(): 2SA1016, 1016K

### **Specifications**

### **Absolute Maximum Ratings** at Ta = 25°C

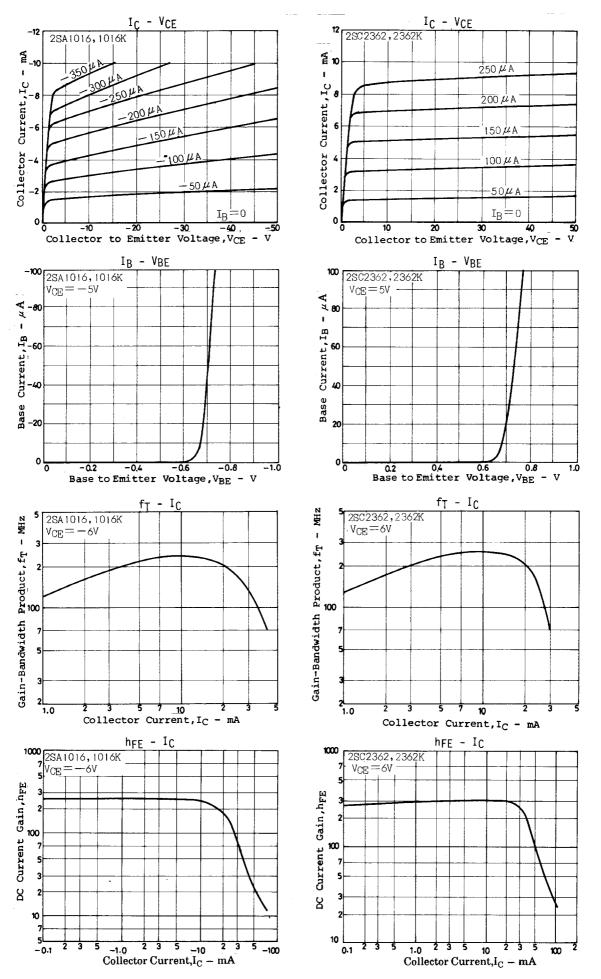
Parameter	Symbol	Conditions	2SA1016, 2SC2362	2SA1016K, 2SC2362K	Unit
Collector-to-Base Voltage	V <sub>CBO</sub>		(-)120	(–)150	V
Collector-to-Emitter Voltage	V <sub>CEO</sub>		(-)100	(–)120	V
Emitter-to-Base Voltage	V <sub>EBO</sub>			V	
Collector Current	IC			mA	
Collector Current (Pulse)	I <sub>CP</sub>			mA	
Collector Dissipation	PC			mW	
Junction Temperature	Tj			°C	
Storage Temperature	Tstg			°C	

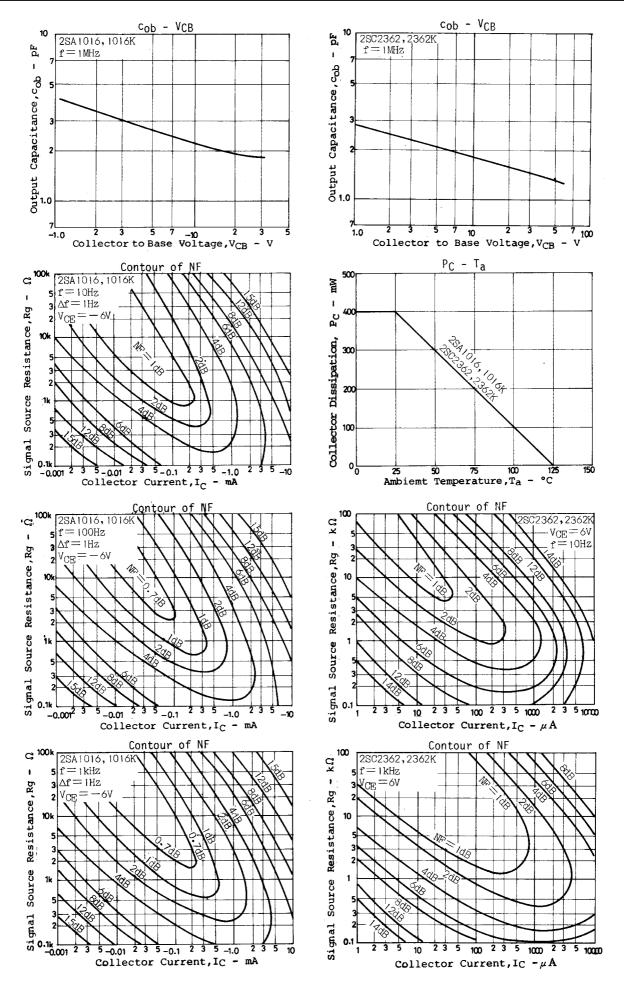
#### **Electrical Characteristics** at Ta = 25°C

Dozometez	Cumbal	Conditions		Ratings		
Parameter	Symbol			typ	max	Unit
Collector Cutoff Current	I <sub>CBO</sub>	V <sub>CB</sub> =(-)80V, I <sub>E</sub> =0			(–)1.0	μΑ
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> =(-)4V, I <sub>C</sub> =0			(–)1.0	μA
DC Current Gain	h <sub>FE</sub>	V <sub>CE</sub> =(-)6V, I <sub>C</sub> =(-)1mA			960*	
Gain-Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> =(-)6V, I <sub>C</sub> =(-)1mA		(110) 130		MHz
Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> =(-)10V, f=1MHz		(2.2) 1.8		pF
Collector-to-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =(-)10mA, I <sub>B</sub> =(-)1mA			(-)0.5	V
Collector-to-Base Breakdown Voltage	V(BR)CBO	I <sub>C</sub> =(-)10μΑ, I <sub>E</sub> =0 [A1016, C2362]	(-)120			V
		I <sub>C</sub> =(-)10μA, I <sub>E</sub> =0 [A1016K, C2362K]	(-)150			V
Collector-to-Emitter Breakdown Voltage	V <sub>(BR)</sub> CEO	I <sub>C</sub> =(-)1mA, R <sub>BE</sub> =∞ [A1016, C2362]	(-)100			V
		I <sub>C</sub> =(-)1mA, R <sub>BE</sub> =∞ [A1016K, C2362K]	(-)120			V
Emitter-to-Base Breakdown Voltage	V(BR)EBO	I <sub>E</sub> =(-)10μΑ, I <sub>C</sub> =0				V
Noise Level	V <sub>NO(ave)</sub>	$V_{CC}$ =30V, $I_{C}$ =1mA, $R_{g}$ =56k $\Omega$ , $V_{G}$ =77dB/1kHz			35	mV
Noise Peak Level	V <sub>NO(peak)</sub>	$V_{CC}$ =30V, $I_{C}$ =1mA, $R_{g}$ =56k $\Omega$ , $V_{G}$ =77dB/1kHz			200	mV

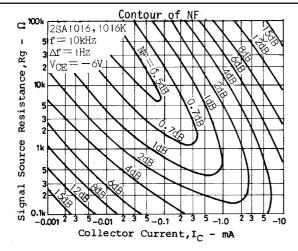
 $<sup>\</sup>mbox{\ensuremath{^{*}}}$  : The 2SA1016, K/2SC2362, K are classified by 1mA  $\mbox{\ensuremath{h_{FE}}}$  as follows :

160 F 320 280 G 560 480 H 960





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



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