



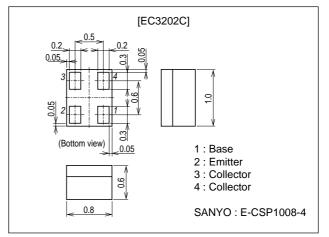
# **Muting Circuit Applications**

#### **Features**

- Ultrasmall-sized package, facilitates miniaturization in end products.
- · Low output capacitance.
- · Low collector-to-emitter saturation voltage.
- · Low ON-resistance.

## **Package Dimensions**

unit : mm 2184



## **Specifications**

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	Vсво		25	V
Collector-to-Emitter Voltage	VCEO		15	٧
Emitter-to-Base Voltage	VEBO		5	٧
Collector Current	IC		100	mA
Collector Current (Pulse)	ICP		200	mA
Base Current	IΒ		20	mA
Collector Dissipation	PC		150	mW
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

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

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	] Oill
Collector Cutoff Current	ІСВО	V <sub>CB</sub> =15V, I <sub>E</sub> =0			0.1	μΑ
Emitter Cutoff Current	IEBO	VEB=4V, IC=0			0.1	μΑ
DC Current Gain	hFE	V <sub>CE</sub> =2V, I <sub>C</sub> =5mA	800		3200	
Gain-Bandwidth Product	fΤ	V <sub>CE</sub> =5V, I <sub>C</sub> =10mA		240		MHz
Output Capacitance	Cob	VCB=10V, f=1MHz		3		pF

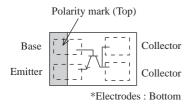
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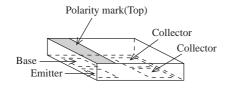
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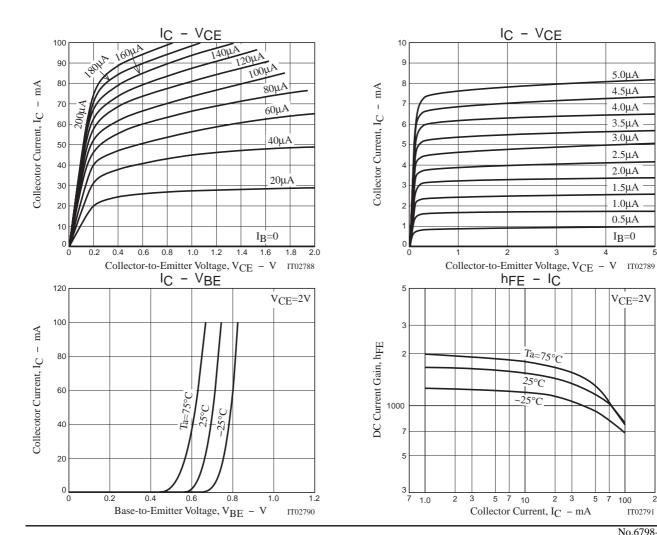
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Unit
Collector-to-Emitter Saturation Voltage	V <sub>CE</sub> (sat)	IC=10mA, IB=1mA		14	30	mV
Base-to-Emitter Saturation Voltage	V <sub>BE</sub> (sat)	IC=10mA, IB=1mA		0.74	1.1	V
Collector-to-Base Breakdown Voltage	V(BR)CBO	IC=(-)10μA, IE=0	25			V
Collector-to-Emitter Breakdown Voltage	V(BR)CEO	IC=1mA, RBE=∞	15			٧
Emitter-to-Base Breakdown Voltage	V(BR)EBO	I <sub>E</sub> =(-)10μA, I <sub>C</sub> =0	5			V
On-Resistance	Ron	IB=3mA, f=1MHz		0.9		Ω

## **Electrical Connection (Top view)**







2

5.0μΑ

4.5μΑ

4.0μΑ

3.5μΑ

3.0μΑ

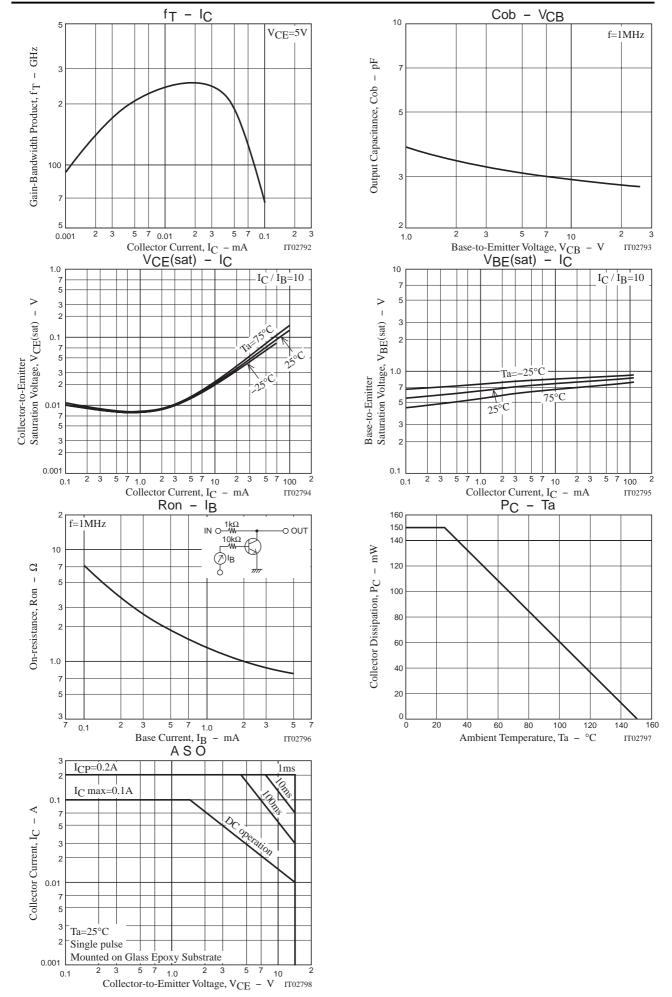
 $2.5 \mu A$ 

2.0μΑ

1.5μΑ 1.0μΑ

0.5μΑ  $I_B=0$ 

 $V_{CE}=2V$ 



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