2SA1839



# **Muting Circuit Applications**

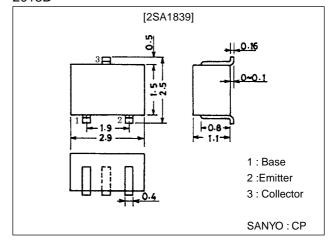
#### **Features**

- · Very small-sized package permitting 2SA1839-applied sets to be made small and slim.
- · Small output capacitance.
- · Low collector-to-emitter saturation voltage.
- · Low ON resistance.

### **Package Dimensions**

unit:mm

2018B



## **Specifications**

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V <sub>CBO</sub>		-15	V
Collector-to-Emitter Voltage	V <sub>CEO</sub>		-10	V
Emitter-to-Base Voltage	V <sub>EBO</sub>		-5	V
Collector Current	IС		-100	mA
Colletor Current (Pulse)	I <sub>CP</sub>		-200	mA
Base Current	I <sub>B</sub>		-20	mA
Collector Dissipation	PC		250	mW
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

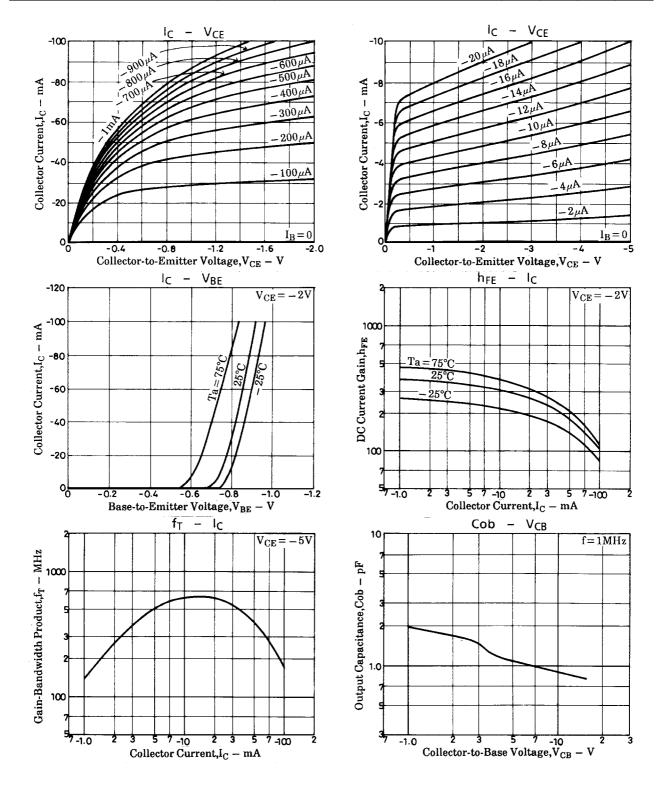
#### Electrical Characteristics at Ta = 25°C

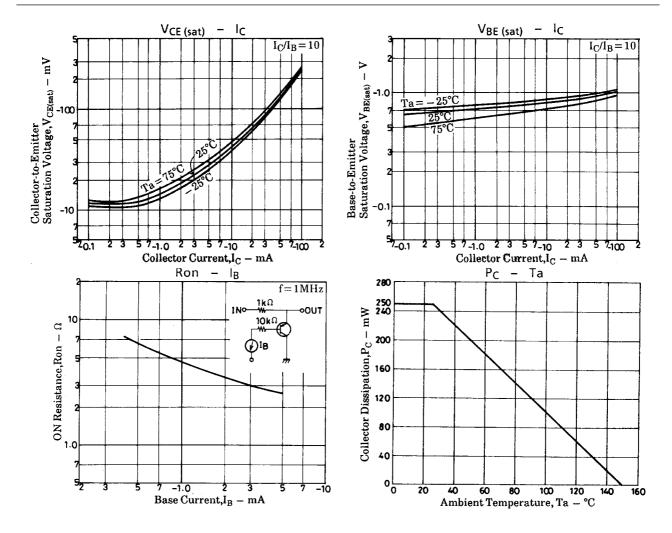
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	ICBO	V <sub>CB</sub> =-12V, I <sub>E</sub> =0			-0.1	μA
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> =-4V, I <sub>C</sub> =0			-0.1	μA
DC Current Gain	hFE	V <sub>CE</sub> =-2V, I <sub>C</sub> =-5mA	200		600	
Gain-Bandwidth Product	fT	V <sub>CE</sub> =-5V, I <sub>C</sub> =-10mA		600		MHz
Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> =-10V, f=1MHz		0.9		pF
Collector-to-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =-10mA, I <sub>B</sub> =-1mA		-0.04	-0.15	V
Base-to-Emitter Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =-10mA, I <sub>B</sub> =-1mA		-0.82	-1.1	V

Marking: LS

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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Offic
Collector-to-Base Breakdown Voltage	V <sub>(BR)</sub> CBO	I <sub>C</sub> =-10μA, I <sub>E</sub> =0	-15			V
Collector-to-Emitter Breakdown Voltage	V(BR)CEO	I <sub>C</sub> =-1mA, R <sub>BE</sub> =∞	-10			V
Emitter-to-Base Breakdown Voltage	V(BR)EBO	I <sub>E</sub> =-10μA, I <sub>C</sub> =0	<b>-</b> 5			V
On Resistance	R <sub>on</sub>	I <sub>B</sub> =–3mA, f=1MHz		3.0		Ω





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