



Muting Circuit Applications

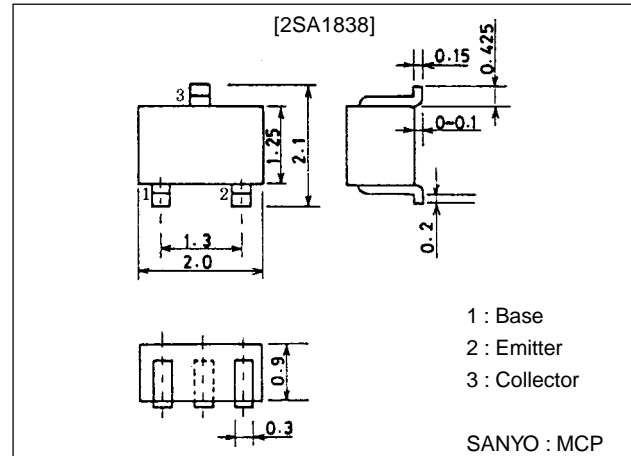
Features

- Very small-sized package permitting 2SA1838-applied sets to be made small and slim.
- Small output capacitance.
- Low collector-to-emitter saturation voltage.
- Low ON resistance.

Package Dimensions

unit:mm

2059A



Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CB0}		-15	V
Collector-to-Emitter Voltage	V_{CEO}		-10	V
Emitter-to-Base Voltage	V_{EBO}		-5	V
Collector Current	I_C		-100	mA
Collector Current (Pulse)	I_{CP}		-200	mA
Base Current	I_B		-20	mA
Collector Dissipation	P_C		200	mW
Junction Temperature	T_J		150	°C
Storage Temperature	T_{stg}		-55 to +150	°C

Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=-12V, I_E=0$			-0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=-4V, I_C=0$			-0.1	μA
DC Current Gain	h_{FE}	$V_{CE}=-2V, I_C=-5mA$	200		600	
Gain-Bandwidth Product	f_T	$V_{CE}=-5V, I_C=-10mA$		600		MHz
Output Capacitance	C_{ob}	$V_{CB}=-10V, f=1MHz$		0.9		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-10mA, I_B=-1mA$		-0.04	-0.15	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-10mA, I_B=-1mA$		-0.82	-1.1	V

Marking : LS

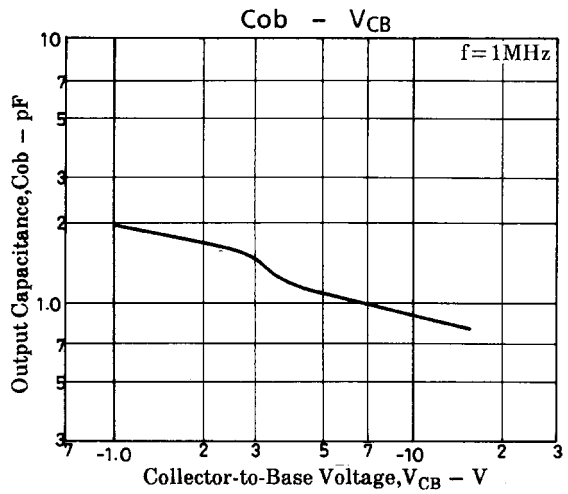
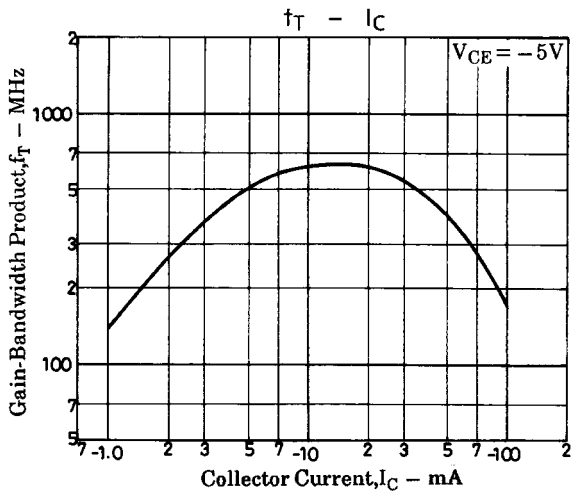
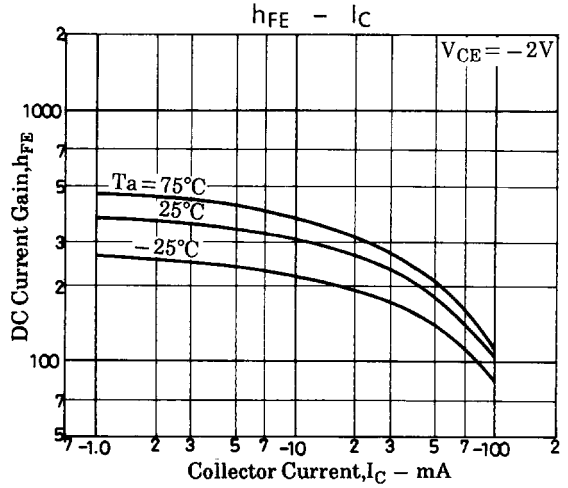
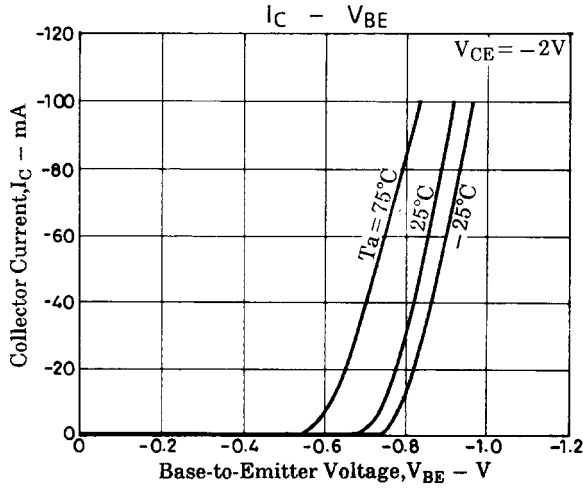
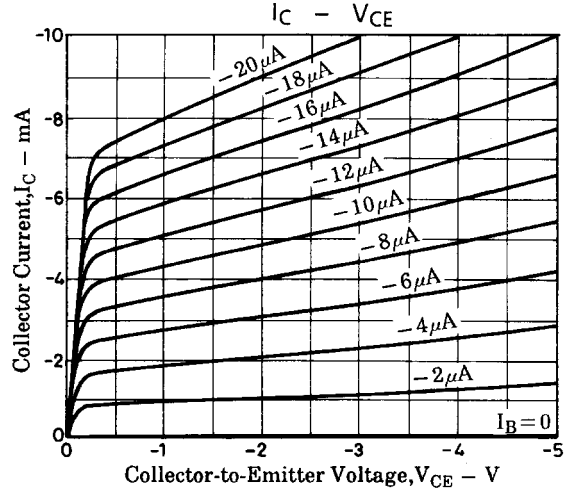
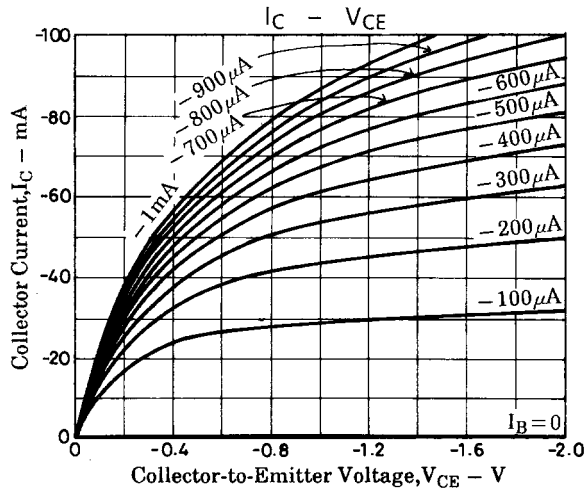
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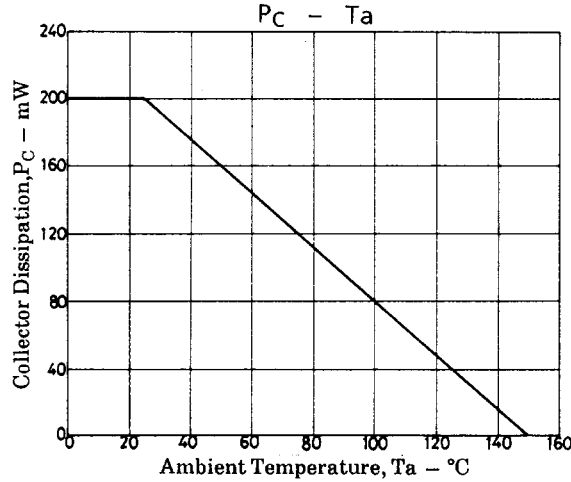
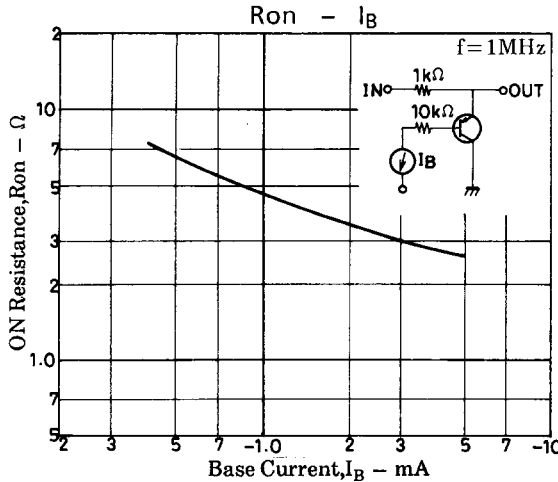
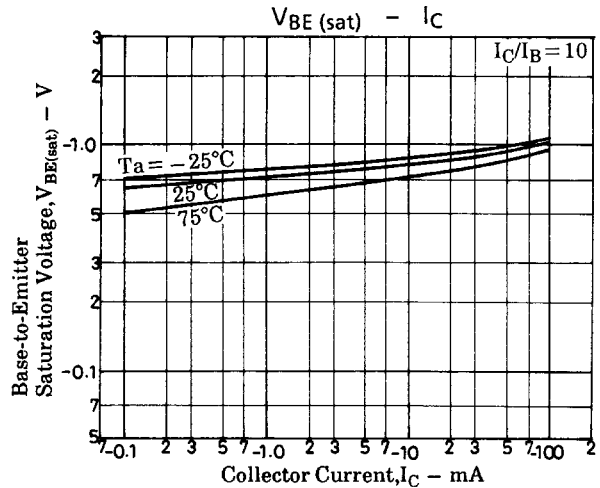
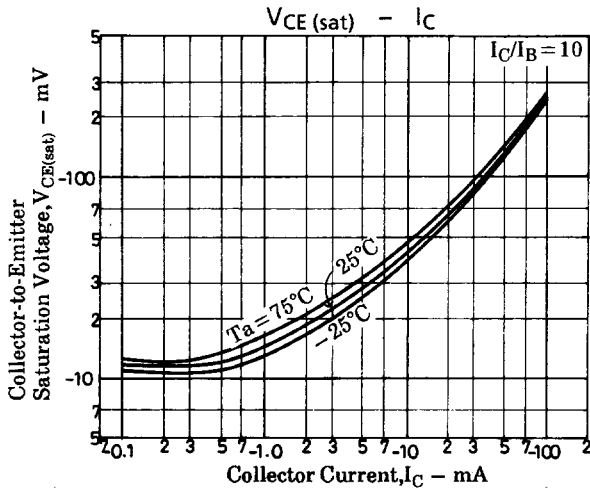
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2SA1838

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu A, I_E = 0$	-15			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1mA, R_{BE} = \infty$	-10			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = 0$	-5			V
On Resistance	R_{on}	$I_B = -3mA, f = 1MHz$		3.0		Ω





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