

SANYO	No.3972	2SA1813
	PNP Epitaxial Planar Silicon Transistor Low-Frequency General-Purpose Amp, Driver, Muting Circuit Applications	

Features

- Very small-sized package permitting 2SA1813-applied sets to be made smaller and slimmer.
- Adoption of FBET process.
- High DC current gain ($h_{FE} = 500$ to 1200).
- Low collector-to-emitter saturation voltage ($V_{CE(sat)} \leq 0.3V$).
- High V_{EBO} ($V_{EBO} \geq 15V$).

Absolute Maximum Ratings at $T_a = 25^\circ C$

			unit
Collector-to-Base Voltage	V_{CBO}	-30	V
Collector-to-Emitter Voltage	V_{CEO}	-25	V
Emitter-to-Base Voltage	V_{EBO}	-15	V
Collector Current	I_C	-150	mA
Collector Current (Pulse)	I_{CP}	-300	mA
Base Current	I_B	-30	mA
Collector Dissipation	P_C	200	mW
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature	T_{stg}	-55 to +150	$^\circ C$

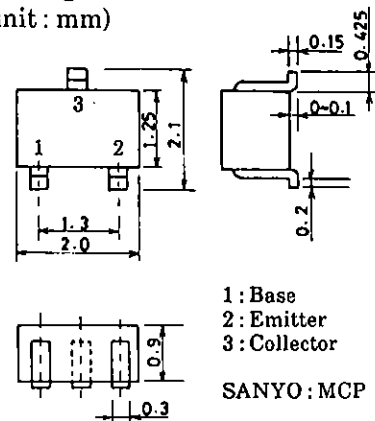
Mounted on board

Electrical Characteristics at $T_a = 25^\circ C$

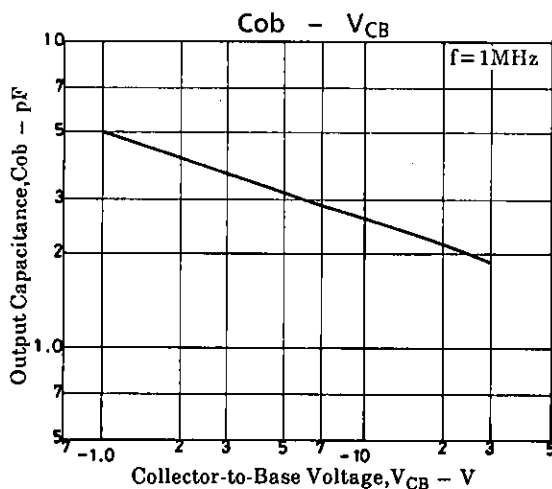
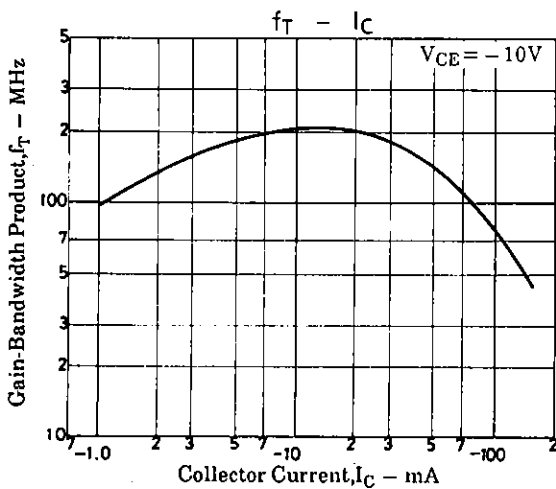
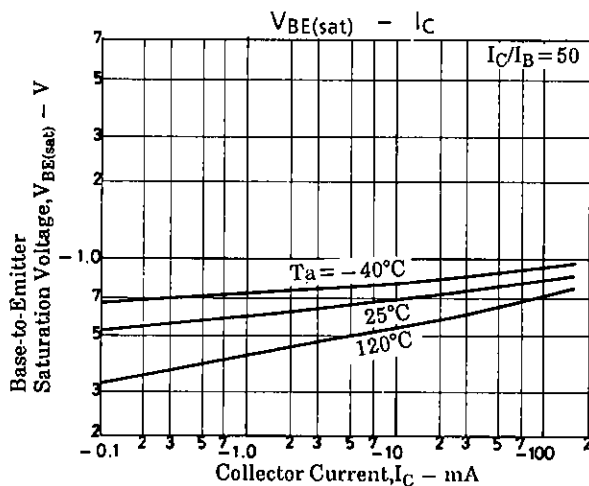
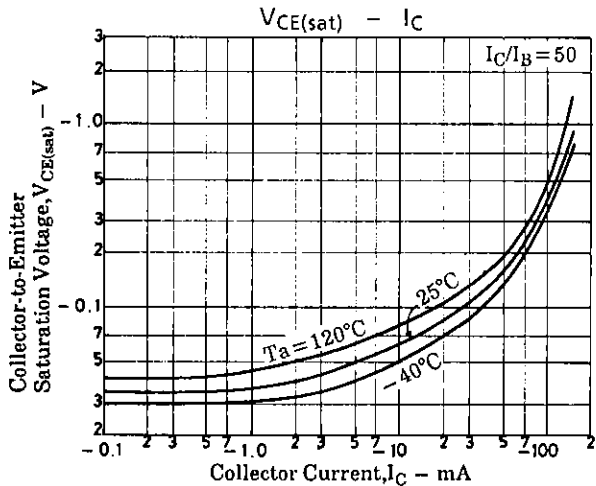
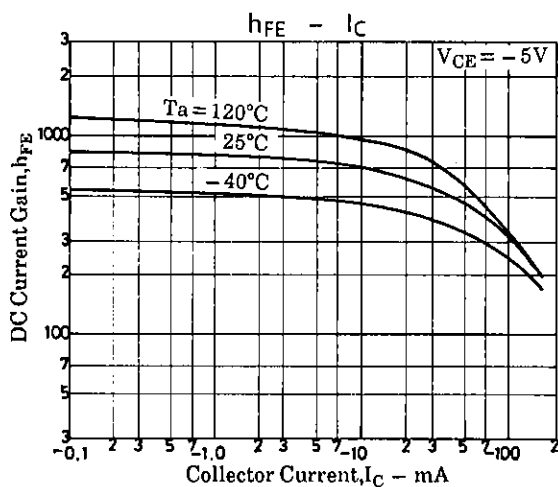
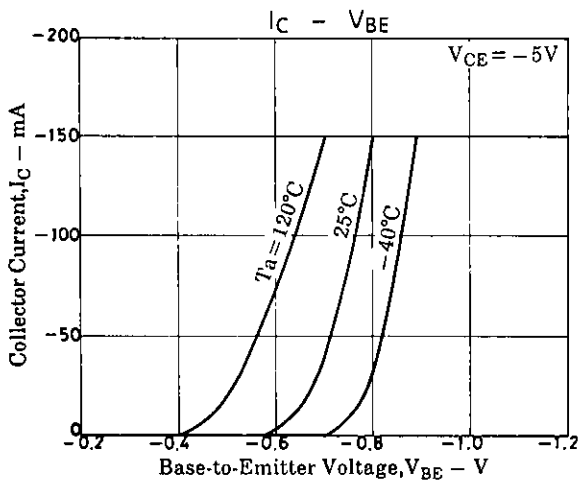
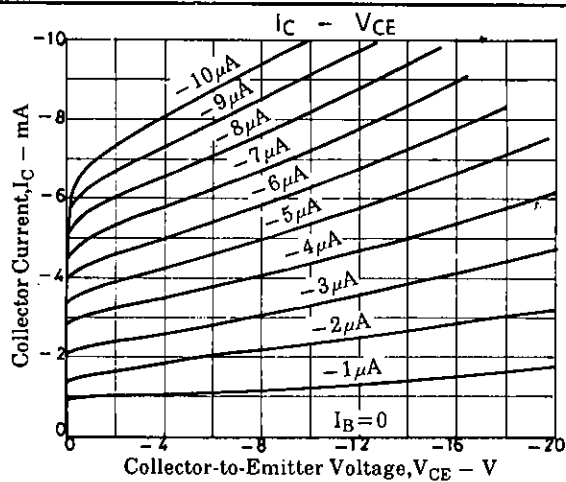
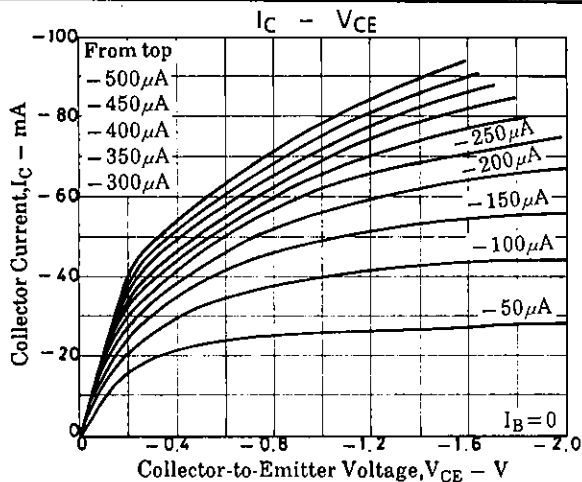
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = -20V, I_E = 0$			-0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = -10V, I_C = 0$			-0.1	μA
DC Current Gain	h_{FE}	$V_{CE} = -5V, I_C = -1mA$	500	800	1200	
Gain-Bandwidth Product	f_T	$V_{CE} = -10V, I_C = -10mA$		210		MHz
Output Capacitance	C_{ob}	$V_{CB} = -10V, f = 1MHz$		2.6		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = -50mA, I_B = -1mA$	-0.15	-0.3		V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = -50mA, I_B = -1mA$	-0.78	-1.1		V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu A, I_E = 0$	-30			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1mA, R_{BE} = \infty$	-25			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = 0$	-15			V

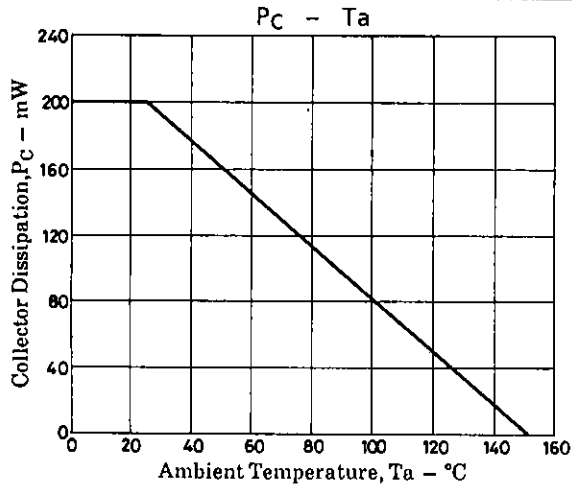
Marking: KS

Package Dimensions 2059A (unit: mm)



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