

**2SB1406****Driver Applications****Applications**

- Relay drivers, hammer drivers, lamp drivers, motor drivers.

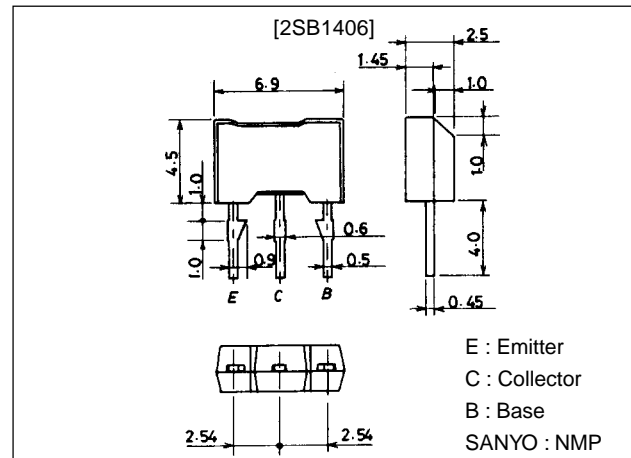
**Features**

- Darlington connection.
- High DC current gain.
- Large current capacity.

**Package Dimensions**

unit:mm

2064

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	$V_{CB0}$		-80	V
Collector-to-Emitter Voltage	$V_{CE0}$		-50	V
Emitter-to-Base Voltage	$V_{EB0}$		-10	V
Collector Current	$I_C$		-1.5	A
Collector Current (Pulse)	$I_{CP}$		-3	A
Collector Dissipation	$P_C$		1	W
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	$I_{CBO}$	$V_{CB}=-40V, I_E=0$			-100	nA
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=-6V, I_C=0$			-100	nA
DC Current Gain	$h_{FE1}$	$V_{CE}=-2V, I_C=-500mA$	4000			
	$h_{FE2}$	$V_{CE}=-2V, I_C=-10mA$	3000			
Gain-Bandwidth Product	$f_T$	$V_{CE}=-10V, I_C=-50mA$		120		MHz
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-500mA, I_B=-0.5mA$		-0.9	-1.5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-500mA, I_B=-0.5mA$		-1.5	-2.0	V

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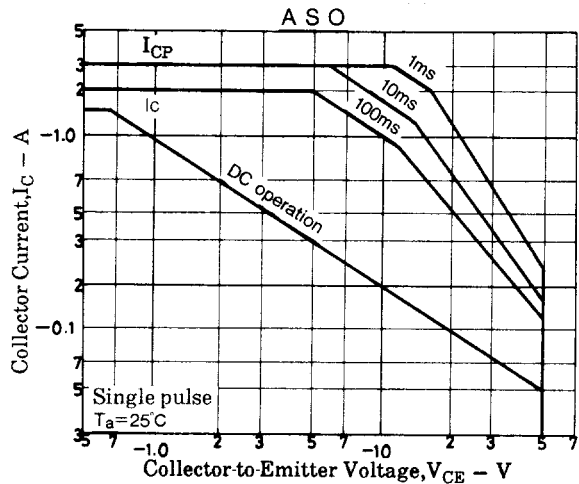
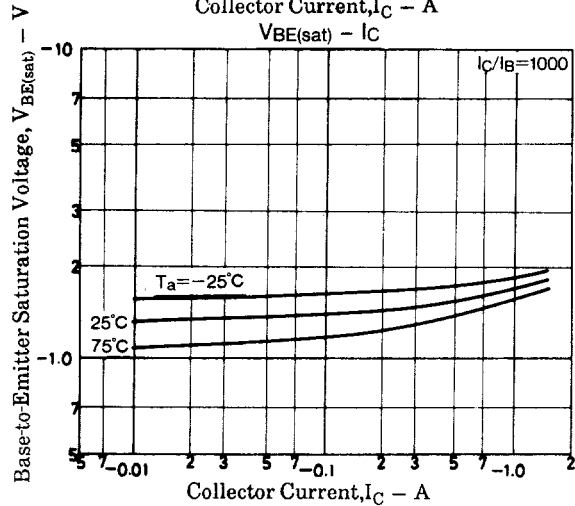
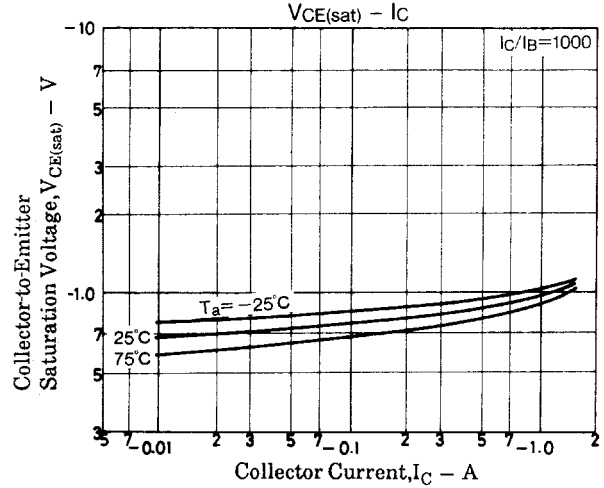
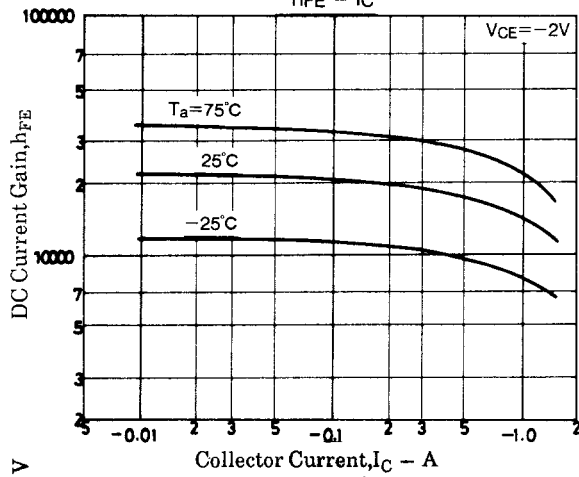
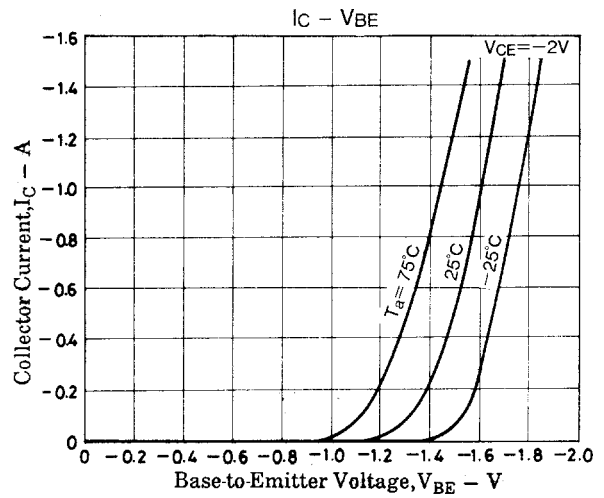
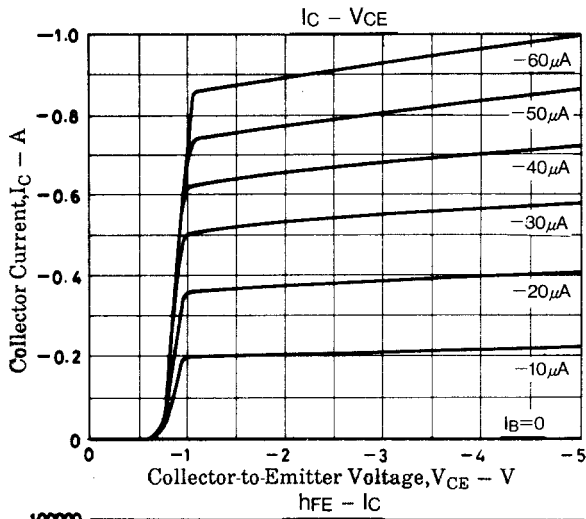
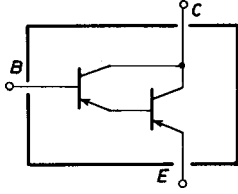
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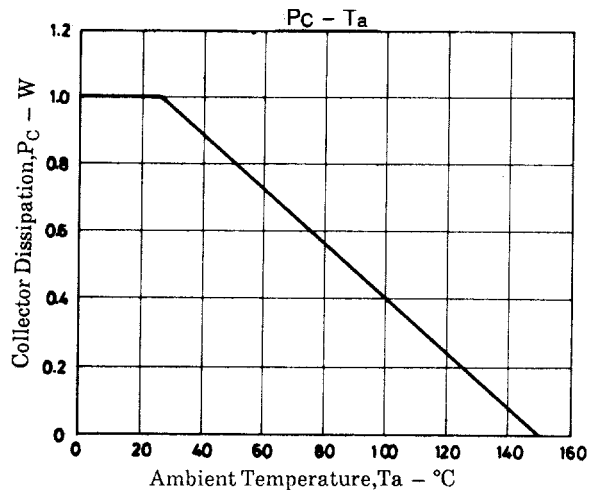
O1598HA (KT)/5300TA (KOTO) No.3470-1/3

# 2SB1406

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu A, I_E = 0$	-80			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1mA, R_{BE} = \infty$	-50			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = 0$	-10			V

## Electrical Connection





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