



2SB1405

General Driver Applications

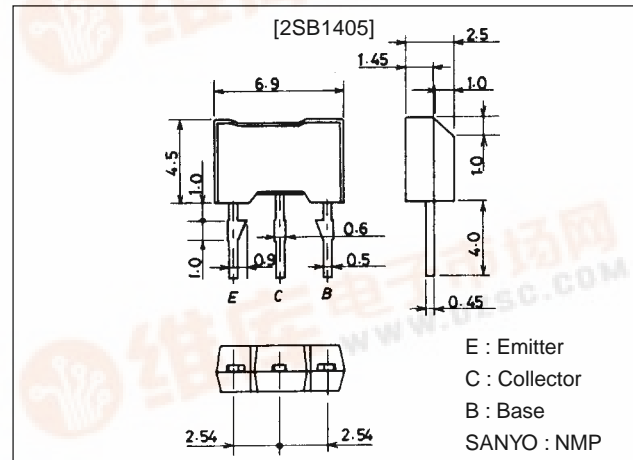
Features

- Darlington connection.
- High DC current gain.
- Large current capacity, wide ASO.

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		-0.7	A
Collector Current (Pulse)	I_{CP}		-2	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

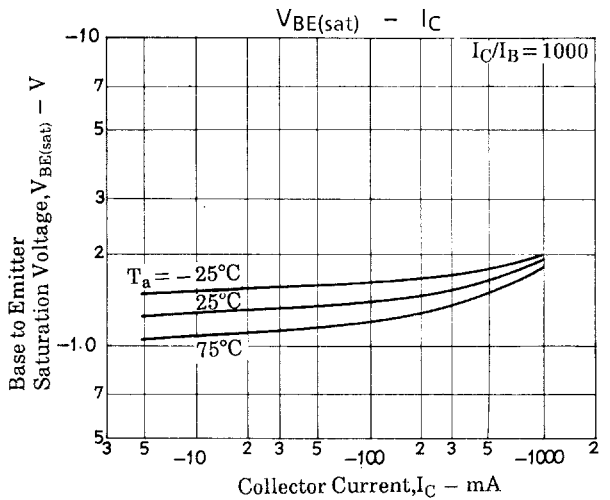
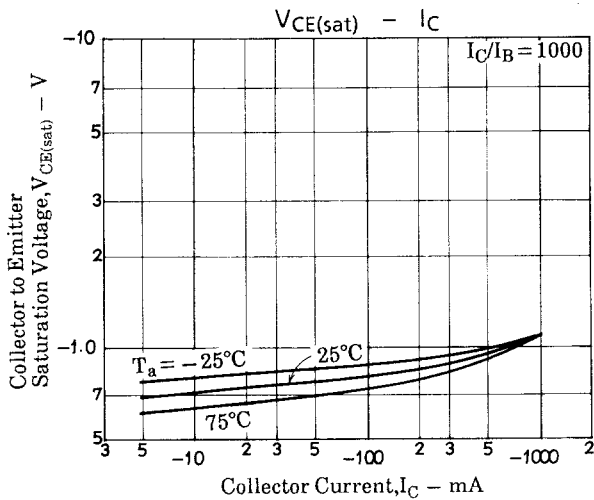
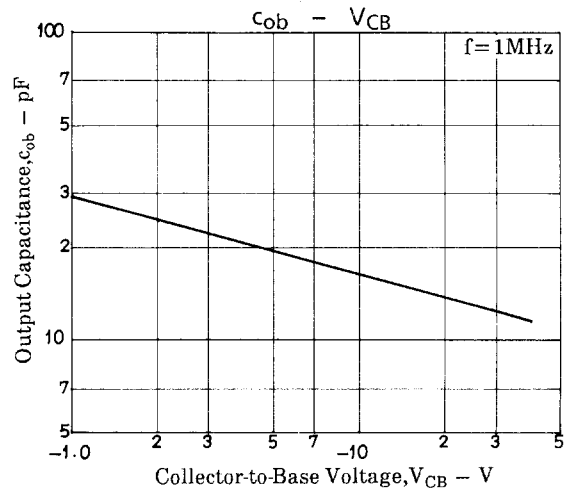
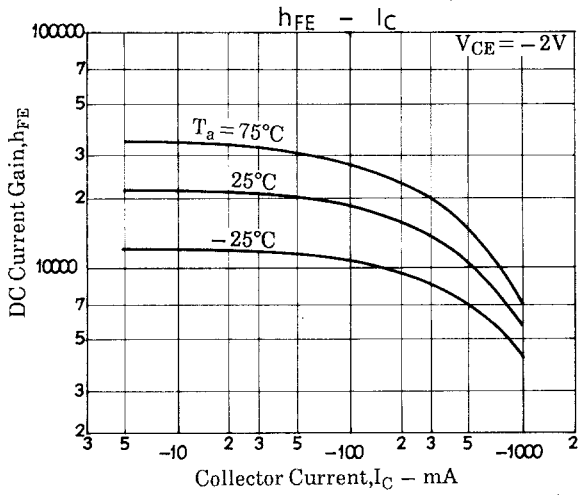
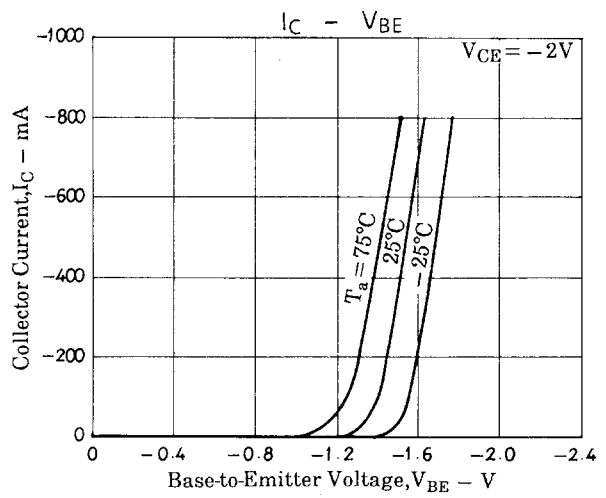
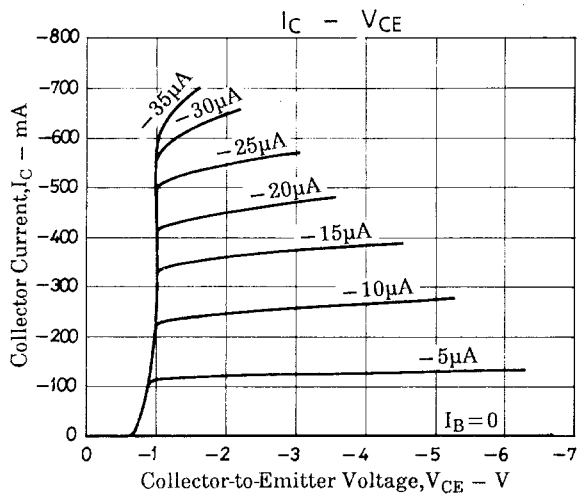
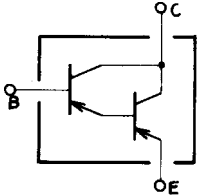
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=-40V, I_E=0$			-100	nA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=-8V, I_C=0$			-100	nA
DC Current Gain	h_{FE1}	$V_{CE}=-2V, I_C=50mA$	5000			
	h_{FE2}	$V_{CE}=-2V, I_C=500mA$	3000			
Gain-Bandwidth Product	f_T	$V_{CE}=-5V, I_C=50mA$		170		MHz
Output Capacitance	C_{ob}	$V_{CB}=-10V, f=1MHz$		18		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-100mA, I_B=-0.1mA$	-0.8	-1.2		V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-100mA, I_B=-0.1mA$	-1.4	-2.0		V

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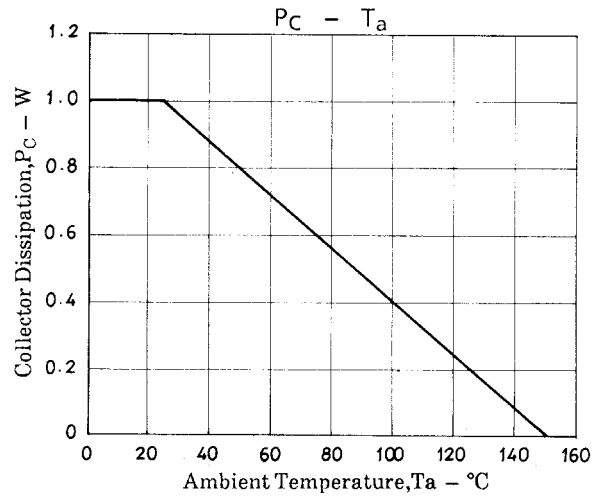
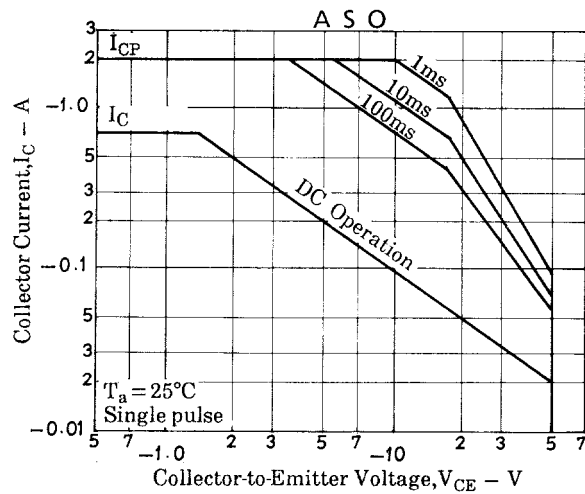
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu A, I_E = 0$	-80			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1mA, R_{BE} = \infty$	-50			V
Emitter-to-Base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

Electrical Connection



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