

SANYO	No.1046B	2SB919/2SD1235
		PNP/NPN Epitaxial Planar Silicon Transistors
30V/8A High-Speed Switching Applications		

Use

- Large current switching of relay drivers, high-speed inverters, converters

Features

- Low collector-to-emitter saturation voltage: $V_{CE(sat)} = -0.5V$ (PNP), $0.4V$ (NPN) max.
- Large current capacity

(): 2SB919

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

			unit
Collector-to-Base Voltage	V_{CBO}	(-)60	V
Collector-to-Emitter Voltage	V_{CEO}	(-)30	V
Emitter-to-Base Voltage	V_{EBO}	(-)6	V
Collector Current	I_C	(-)8	A
Collector Current (Pulse)	I_{CP}	(-)15	A
Collector Dissipation	P_C	1.75	W
		$T_c = 25^\circ C$	30
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature	T_{stg}	-55 to +150	$^\circ C$

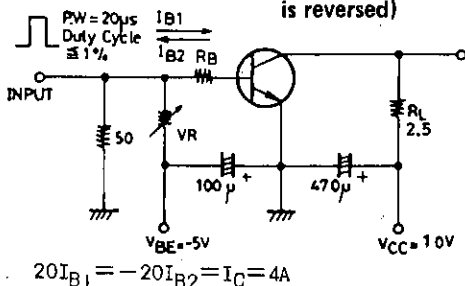
Electrical Characteristics/ $T_a = 25^\circ C$

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = (-)40V, I_E = 0$			(-)0.1	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = (-)4V, I_C = 0$			(-)0.1	mA
Common Emitter DC Current Gain	$h_{FE(1)}$	$V_{CE} = (-)2V, I_C = (-)1A$	70*		280*	
	$h_{FE(2)}$	$V_{CE} = (-)2V, I_C = (-)4A$	30			
Gain Band-width Product	f_T	$V_{CE} = (-)5V, I_C = (-)1A$		120		MHz
Collector-to-Emitter Saturation	$V_{CE(sat)}$	$I_C = (-)3A, I_B = (-)0.15A$			0.4 (-0.5)	MHz
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)1mA, I_E = 0$	(-)60			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)1mA, R_{BE} = \infty$	(-)30			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = (-)1mA, I_C = 0$	(-)6			V
Turn-on Time	t_{on}	See specified Test Circuit		0.1		μs
Storage Time	t_{stg}	"		(0.2)0.5		μs
Fall Time	t_f	"		0.03		μs

* The 2SB919/2SD1235 are classified as follows according to h_{FE} at 1A.

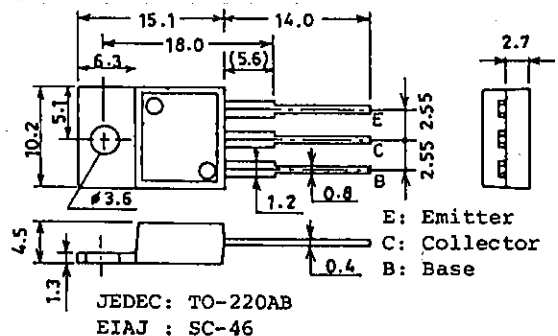
70	Q	140	100	R	200	140	S	280
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Switching Time Test Circuit (For PNP, the polarity is reversed)

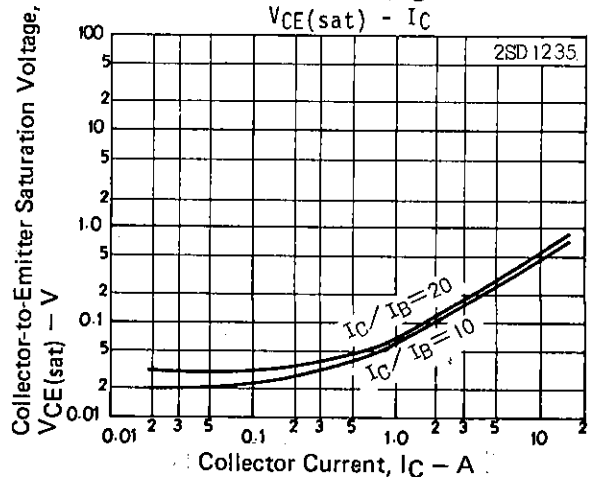
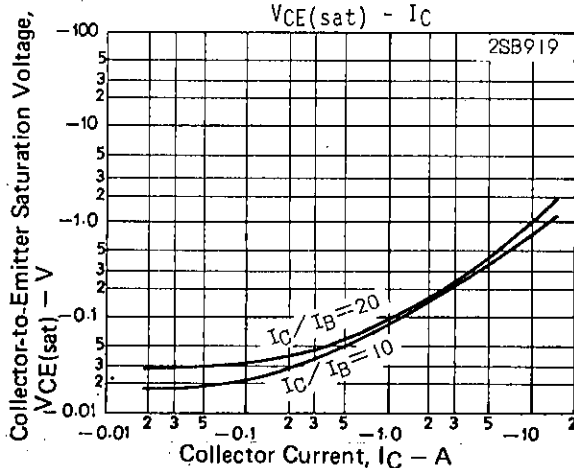
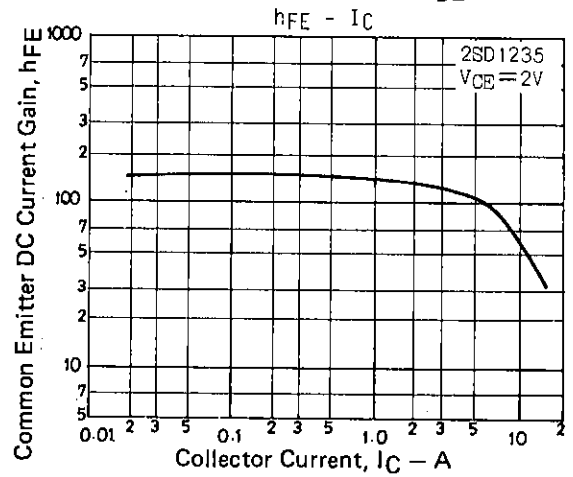
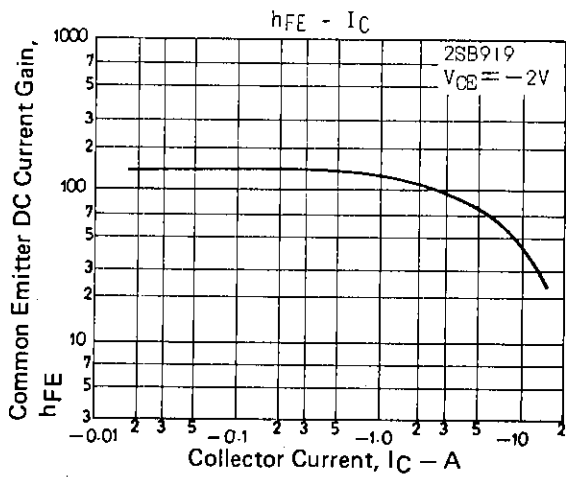
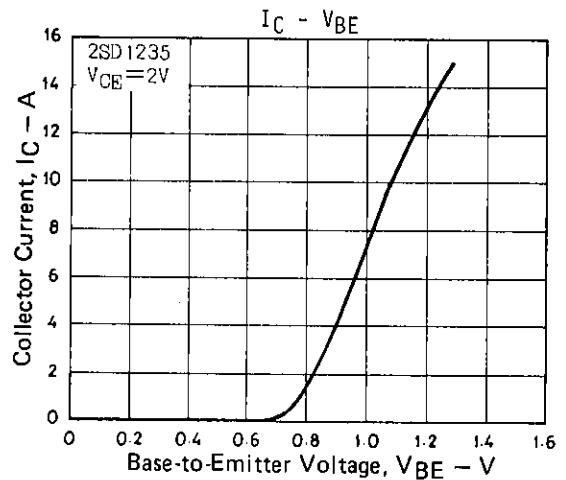
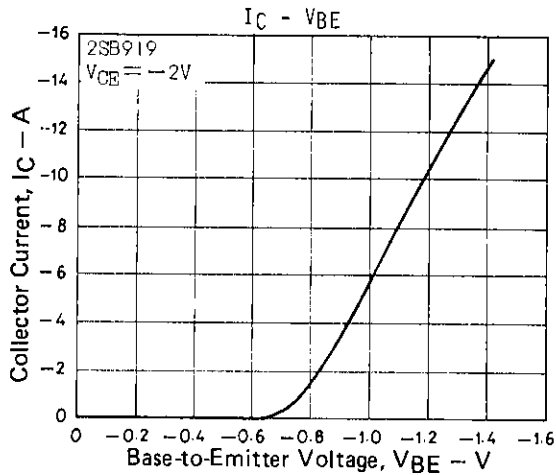
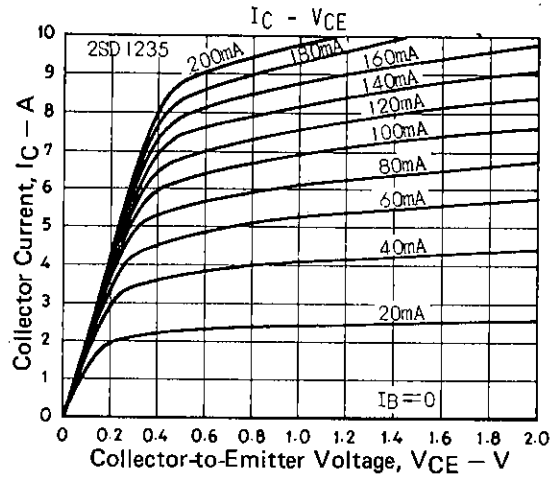
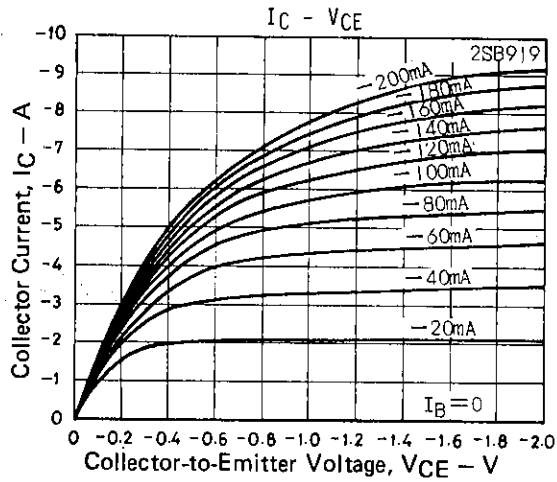


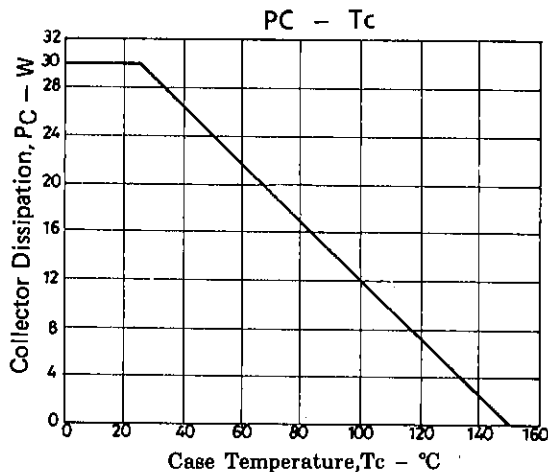
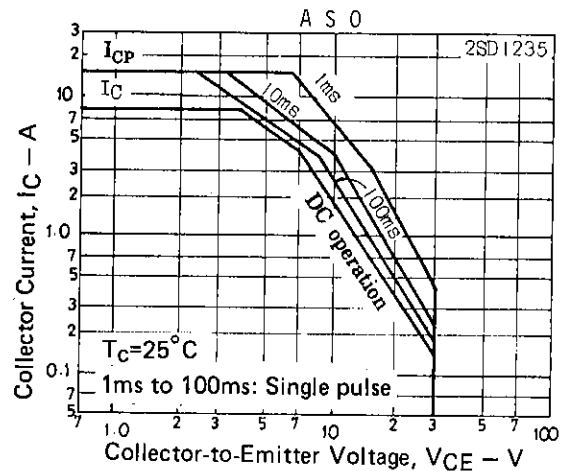
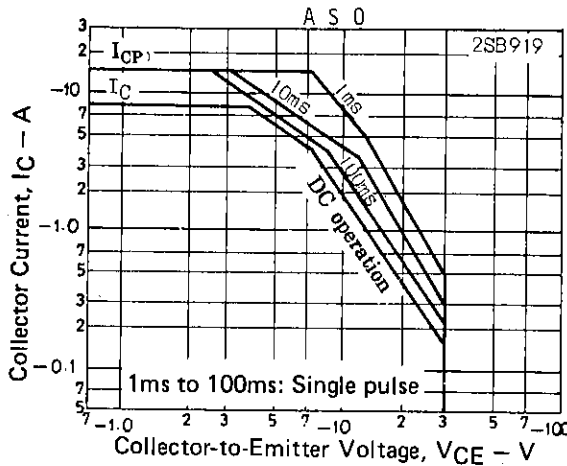
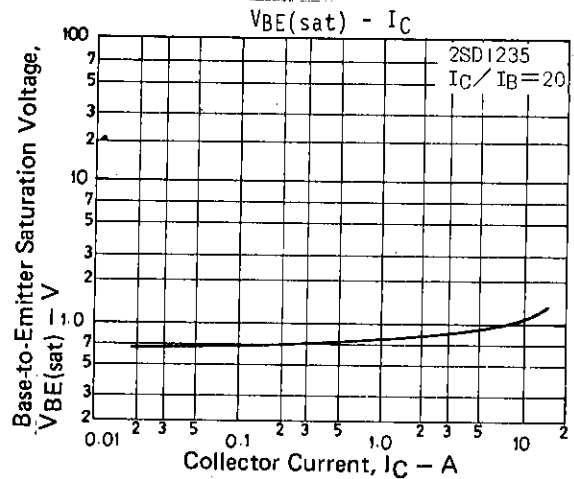
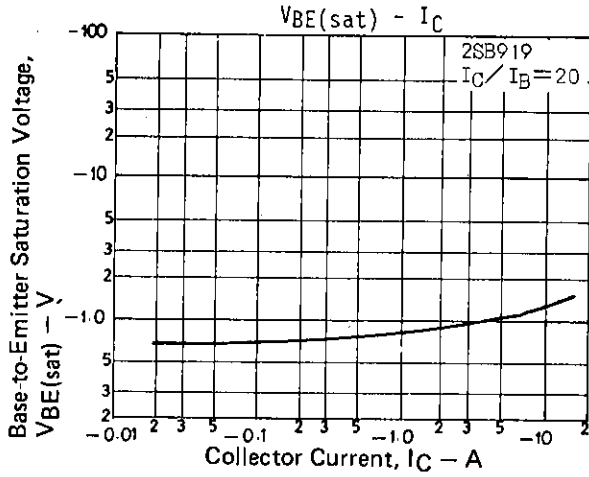
Unit (resistance: Ω , capacitance: F)

Package Dimensions 2010B (unit: mm)



2SB919/2SD1235





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