

SANYO	No.1798A	2SB922L / 2SD1238L
		PNP/NPN Epitaxial Planar Silicon Transistors
80V/12A Switching Applications		

Use

Suitable for relay drivers, high-speed inverters, converters, and other large-current switching applications.

Features

- Low collector-to-emitter saturation voltage: $V_{CE(sat)} = -0.5V$ (PNP), $0.4V$ (NPN) max.
- Wide ASO and highly resistant to breakdown
- (): 2SB922L

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

			unit
Collector-to-Base Voltage	V_{CBO}	(-)90	V
Collector-to-Emitter Voltage	V_{CEO}	(-)80	V
Emitter-to-Base Voltage	V_{EBO}	(-)6	V
Collector Current	I_C	(-)12	A
Collector Current (Pulse)	I_{CP}	(-)20	A
Collector Dissipation	P_C	$T_c = 25^\circ C$	80 W
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature	T_{stg}	-55 to +150	$^\circ C$

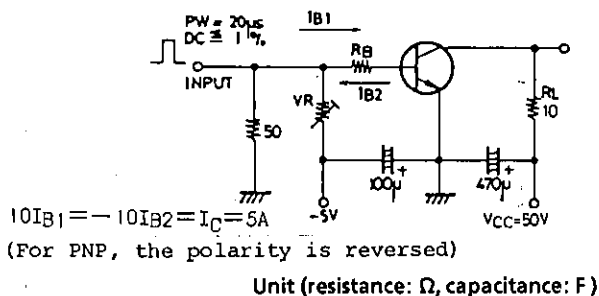
Electrical Characteristics at $T_a = 25^\circ C$

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = (-)80V, I_E = 0$			(-)0.1	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = (-)4V, I_C = 0$			(-)0.1	mA
DC Current gain	$h_{FE}(1)$	$V_{CE} = (-)2V, I_C = (-)1A$	70*		280*	
	$h_{FE}(2)$	$V_{CE} = (-)2V, I_C = (-)6A$	30			
Gain Bandwidth Product	f_T	$V_{CE} = (-)5V, I_C = (-)1A$		20		MHz
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)6A, I_B = (-)0.6A$			0.4	V
					(-0.5)	
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)1mA, I_E = 0$	(-)90			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)1mA, R_{BE} = \infty$	(-)80			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = (-)1mA, I_C = 0$	(-)6			V
Turn-on Time	t_{on}	See specified Test Circuit.		0.2		μs
Storage Time	t_{stg}	"		1.7		μs
				(0.7)		
Fall Time	t_f	"		0.2		μs
				(0.1)		

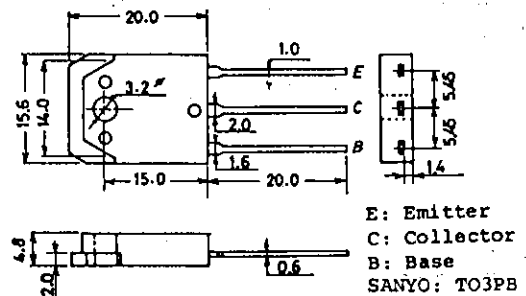
*: The 2SB922L/2SD1238L are classified by 1A h_{FE} as follows:

70	Q	140	100	R	200	140	S	280
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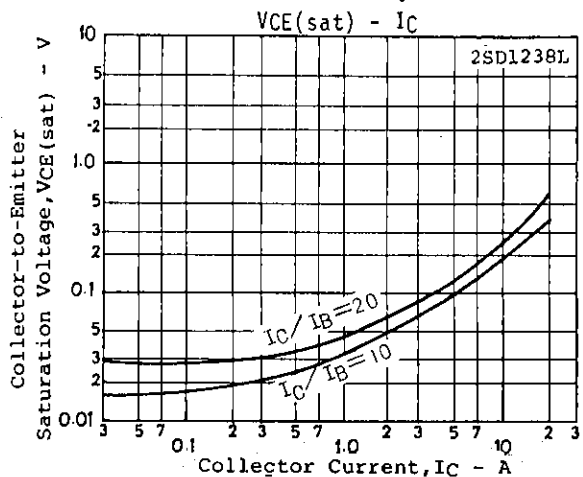
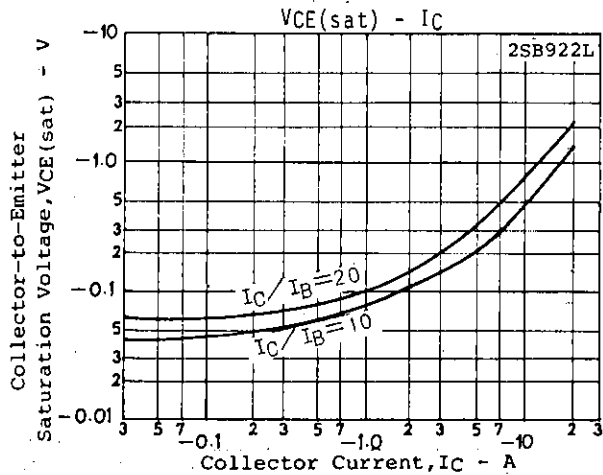
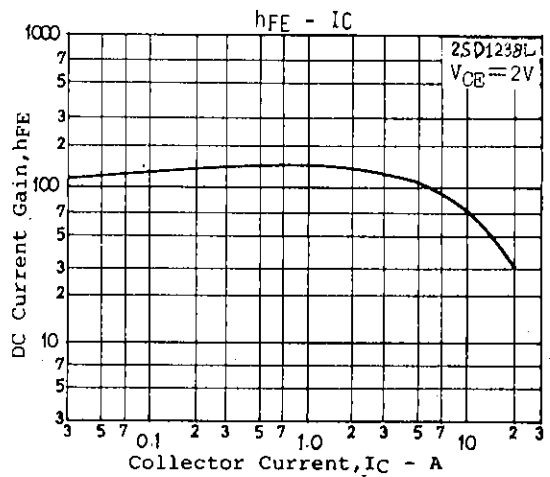
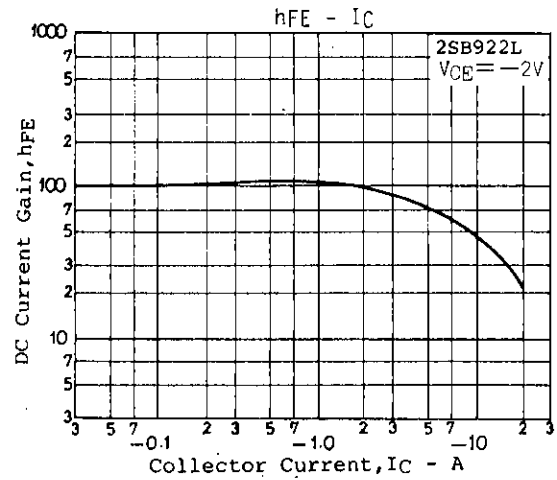
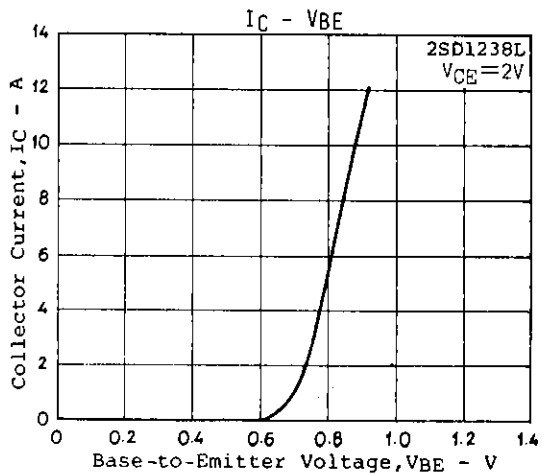
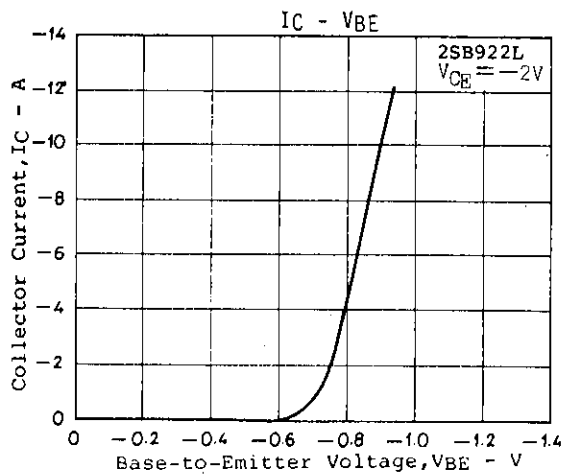
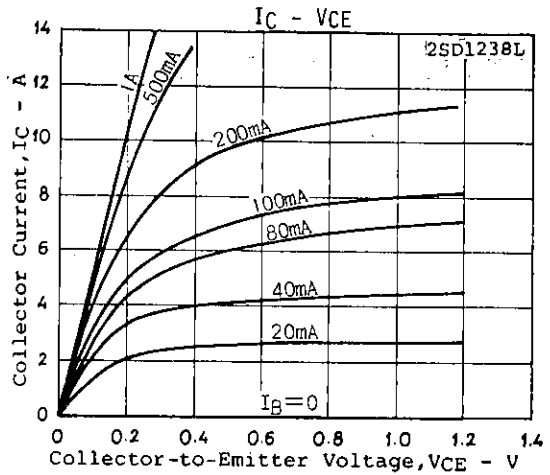
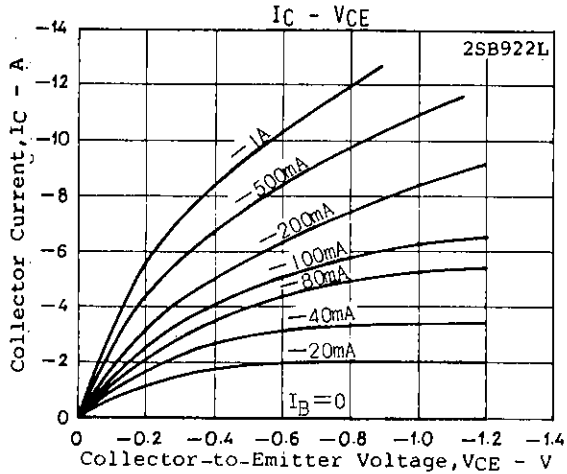
Switching Time Test Circuit

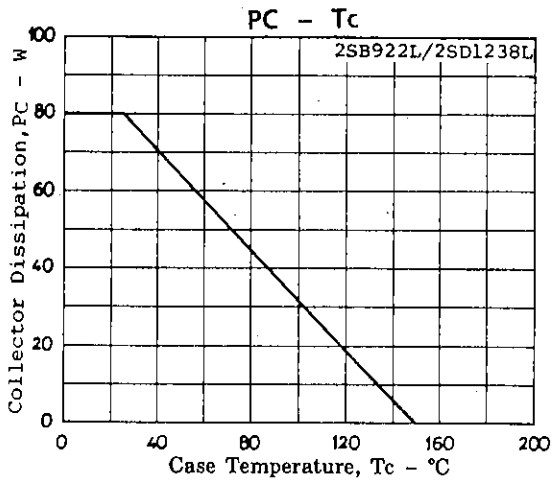
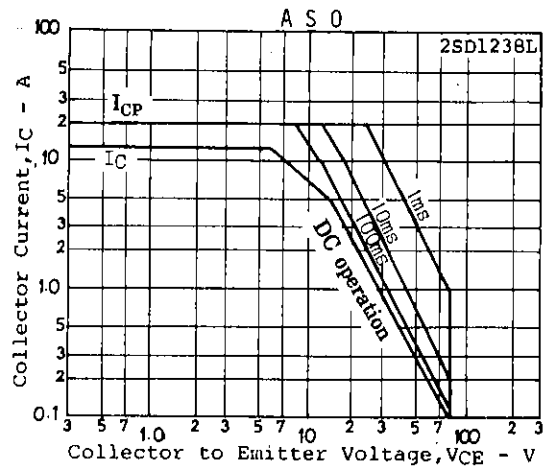
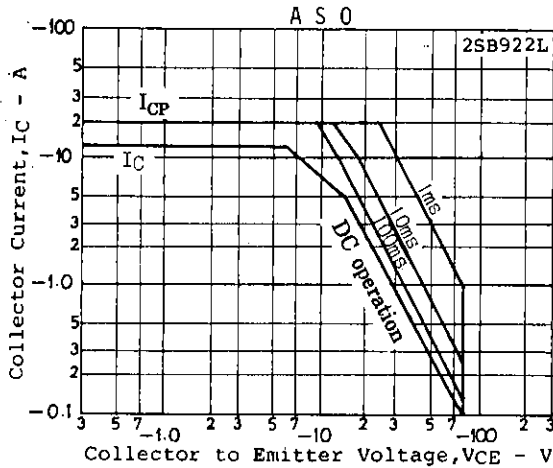


Package Dimensions 2022
(unit:mm)



2SB922L/2SD1238L





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