

SANYO**FX503**

PNP Epitaxial Planar Silicon Transistor

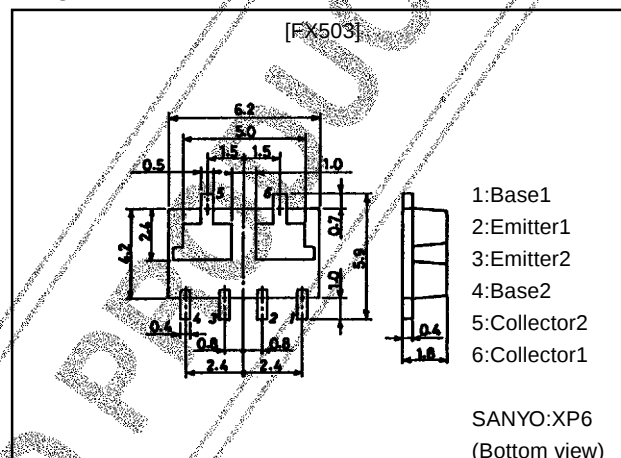
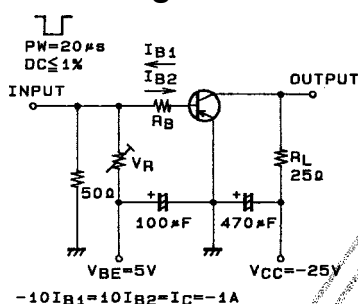
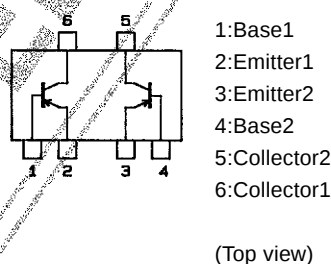
High-Current Switching Applications**Features**

- Composite type with 2 PNP transistors contained in one package, facilitating high-density mounting.
- The FX503 houses two chips, each being equivalent to the 2SB1202, in one package.
- Matched pair characteristics.

Package Dimensions

unit:mm

2118

**Switching Time Test Circuit****Electrical Connection****Specifications****Absolute Maximum Ratings at $T_a = 25^\circ C$**

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		-60	V
Collector-to-Emitter Voltage	V_{CEO}		-50	V
Emitter-to-Base Voltage	V_{EBO}		-6	V
Collector Current	I_C		-3	A
Collector Current (Pulse)	I_{CP}		-6	A
Base Current	I_B		-600	mA
Collector Dissipation	P_C	Mounted on ceramic board (750mm ² ×0.8mm) 1 unit	1.5	W
Total Dissipation	P_T	Mounted on ceramic board (750mm ² ×0.8mm)	2	W
Junction Temperature	T_J		150	°C
Storage Temperature	T_{stg}		-55 to +150	°C

• Marking:503

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52098HA (KT)/42695MO (KOTO) BX-1458 No.4903-1/4

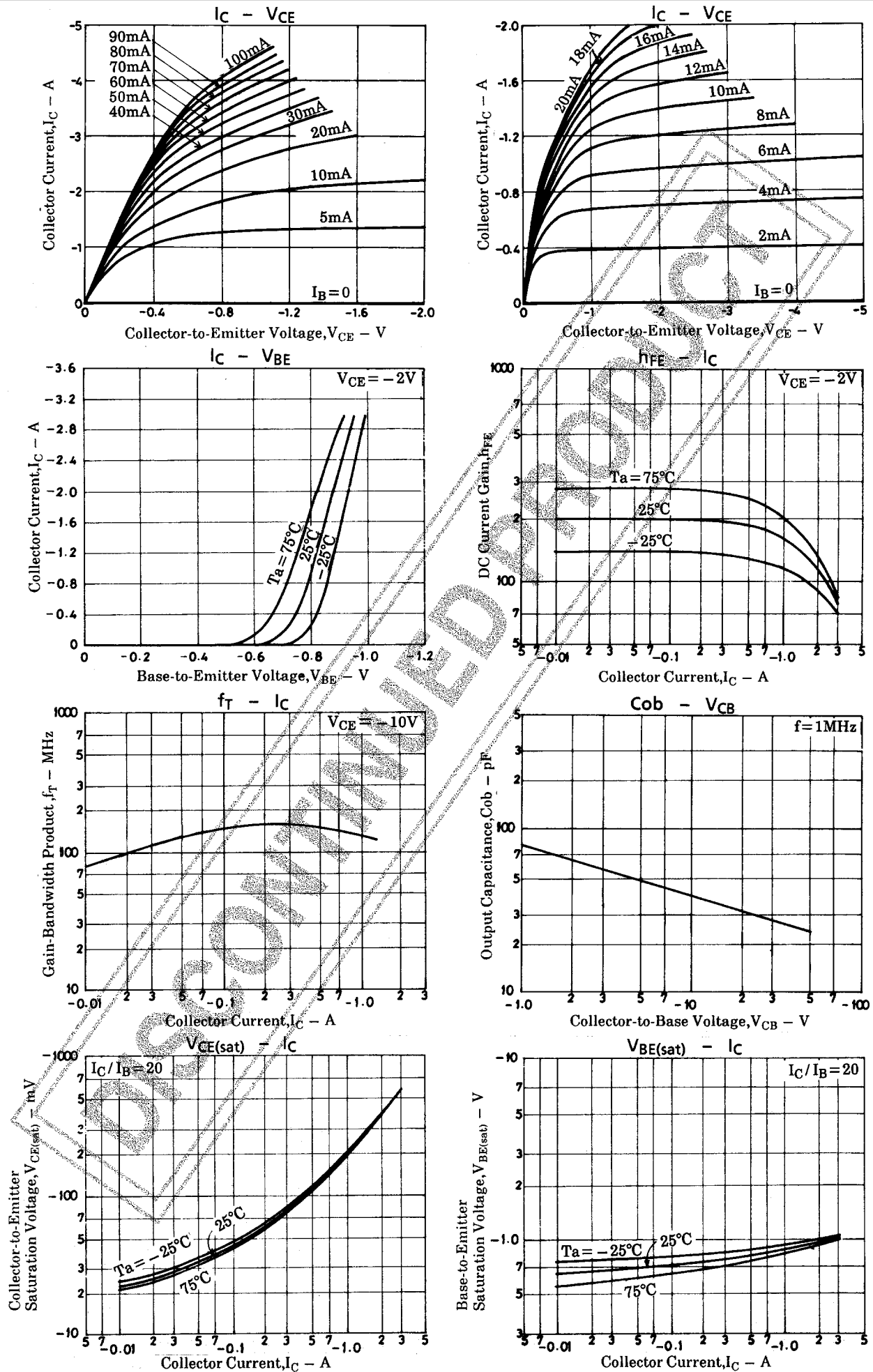
FX503

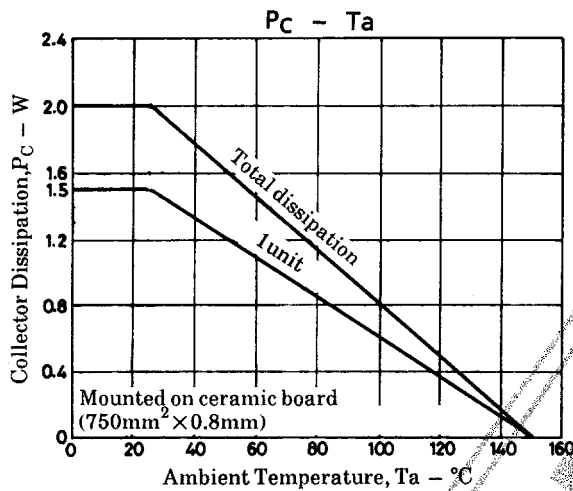
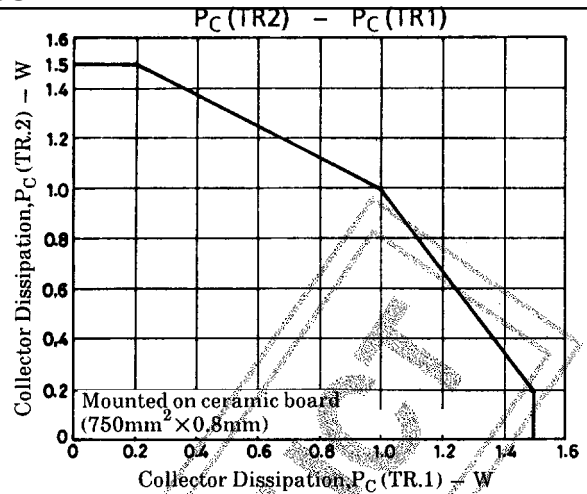
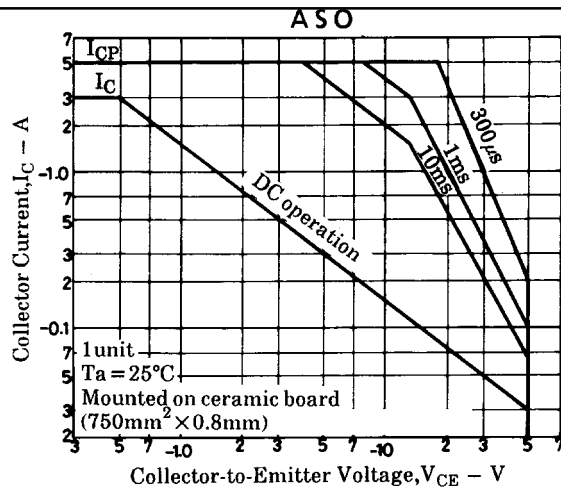
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Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB} = -40\text{V}, I_E = 0$			-1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = -4\text{V}, I_C = 0$			-1	μA
DC Current Gain	h_{FE1}	$V_{CE} = -2\text{V}, I_C = -100\text{mA}$	140		400	
	h_{FE2}	$V_{CE} = -2\text{V}, I_C = -3\text{A}$	35			
DC Current Gain Ratio	$h_{FE}(\text{small/large})$	$V_{CE} = -2\text{V}, I_C = -100\text{mA}$	0.8			
Gain-Bandwidth Product	f_T	$V_{CE} = -10\text{V}, I_C = -100\text{mA}$		150		MHz
Output Capacitance	C_{ob}	$V_{CB} = -10\text{V}, f = 1\text{MHz}$		39		pF
C-E Saturation Voltage	$V_{CE}(\text{sat})$	$I_C = -2\text{A}, I_B = -100\text{mA}$		-350	-700	mV
B-E Saturation Voltage	$V_{BE}(\text{sat})$	$I_C = -2\text{A}, I_B = -100\text{mA}$		-0.94	-1.2	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu\text{A}, I_E = 0$		60		V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, R_{BE} = \infty$		50		V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -10\mu\text{A}, I_C = 0$		-6		V
Turn-ON Time	t_{on}	See specified Test Circuit		70		ns
Storage Time	t_{stg}	See specified Test Circuit		450		ns
Fall Time	t_f	See specified Test Circuit		35		ns

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