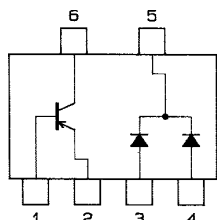


SANYO**FX802**

TR:PNP Epitaxial Planar Silicon Transistor
 SBD:Schottky Barrier Diode (Twin type · Cathode Common)

DC-DC Converter**Features**

- Complex type of a low saturation voltage, high speed switching and large current PNP transistor and a fast recovery and low forward voltage Schottky barrier diode facilitating high-density mounting.
- The FX802 is composed of 2 chips, one being equivalent to the 2SB1302 and the other the SB20W03P, placed in one package.

Electrical Connection

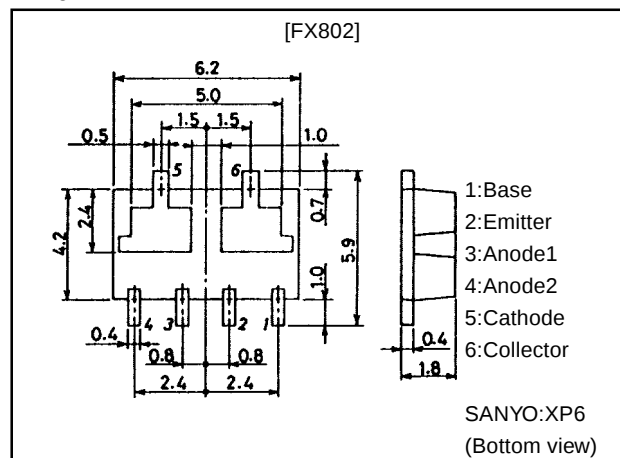
1:Base
 2:Emitter
 3:Anode1
 4:Anode2
 5:Cathode
 6:Collector

(Top view)

Package Dimensions

unit:mm

2126

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

Parameter	Symbol	Conditions	Ratings	Unit
[TR]				
Collector-to-Base Voltage	V_{CBO}		-25	V
Collector-to-Emitter Voltage	V_{CEO}		-20	V
Emitter-to-Base Voltage	V_{EBO}		-5	V
Collector Current	I_C		-5	A
Collector Current (Pulse)	I_{CP}		-8	A
Base Current	I_B		-1	A
Collector Dissipation	P_C	Mounted on ceramic board (750mm ² ×0.8mm) 1 unit	1.5	W
Junction Temperature	T_J		150	°C
[SBD]				
Repetitive Peak Reverse Voltage	V_{RRM}		30	V
Non-repetitive Peak Reverse Surge Voltage	V_{RSM}		35	V
Average Rectified Current	I_O		2	A
	I_O	(Total)	4	A
Surge Forward Current	I_{FSM}	50Hz sine wave, 1 cycle	10	A
Junction Temperature	T_J		-55 to +125	°C
Storage Temperature	T_{stg}		-55 to +125	°C

· Marking:802

Continued on next page.

SANYO Electric Co.,Ltd. Semiconductor Business Headquarters

TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

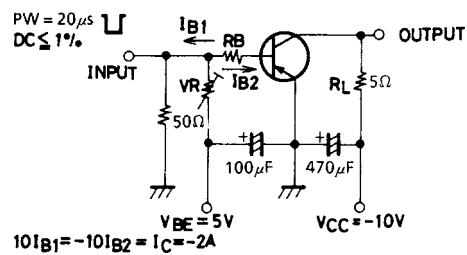
52098HA (KT)/41095TS (KOTO) TA-0134 No.5052-1/4

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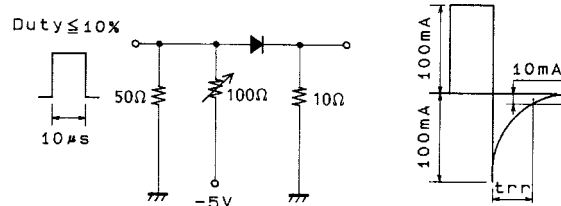
Electrical Characteristics at Ta = 25°C

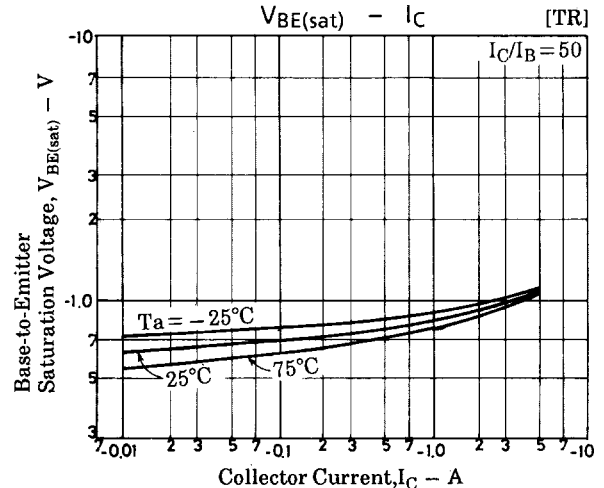
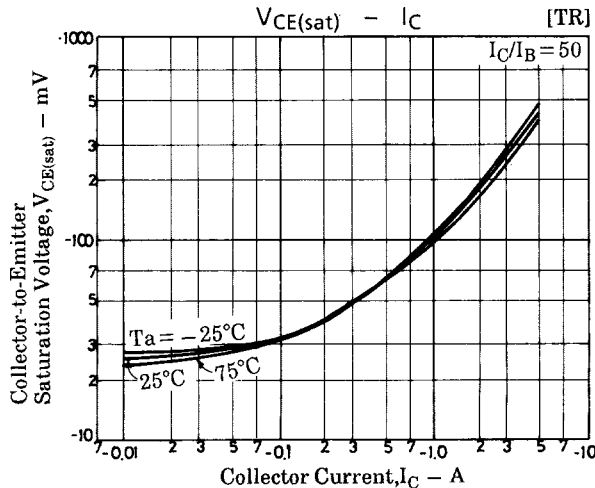
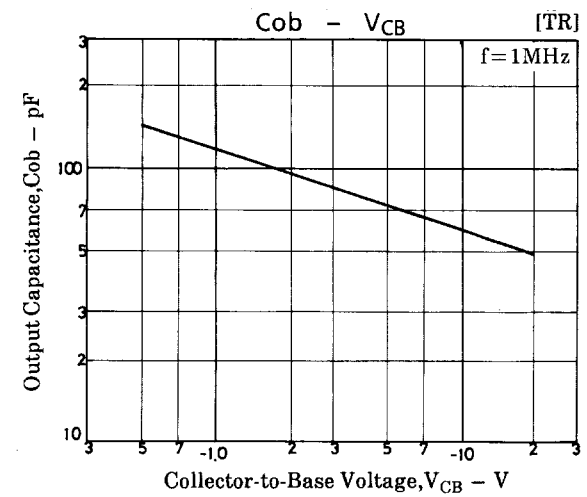
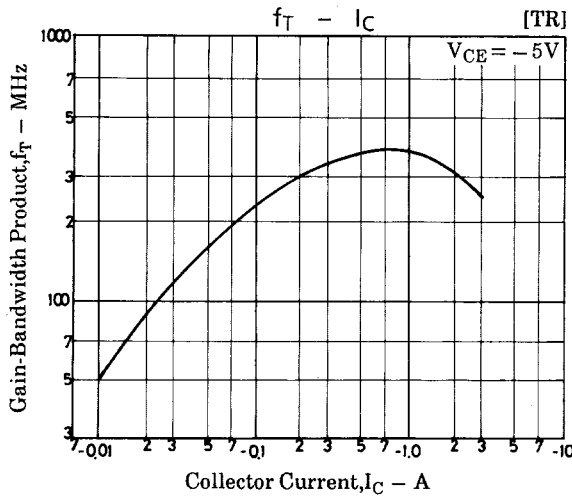
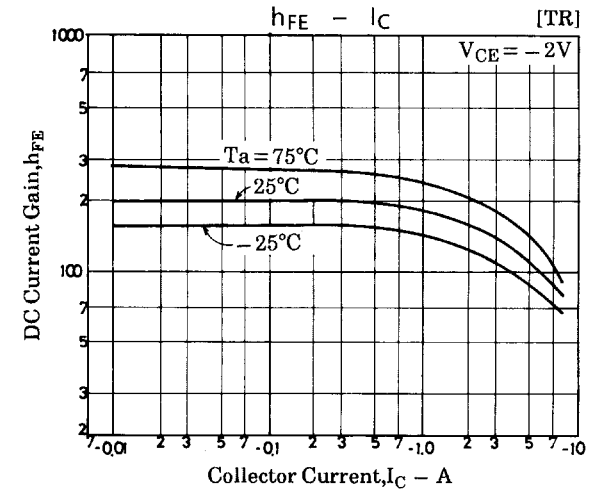
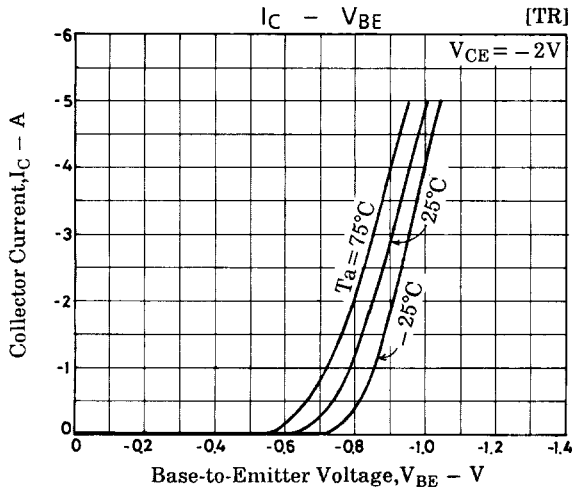
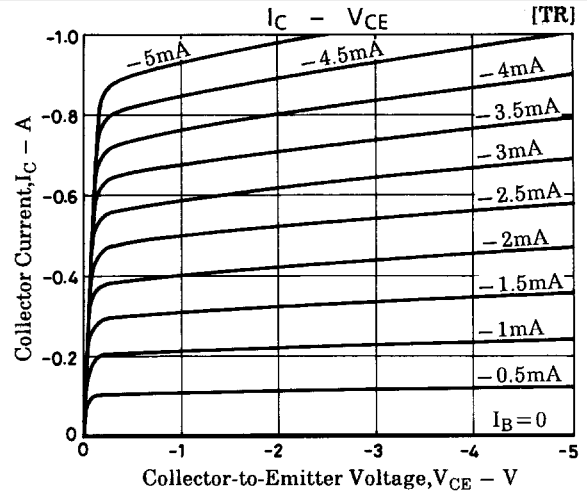
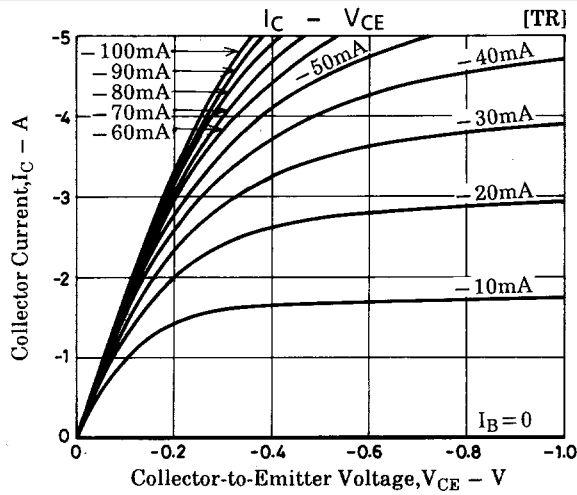
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
[TR]						
Collector Cutoff Current	I _{CBO}	V _{CB} =−20V, I _E =0			−500	nA
Emitter Cutoff Current	I _{EBO}	V _{EB} =−4V, I _C =0			−500	nA
DC Current Gain	h _{FE1}	V _{CE} =−2V, I _C =−500mA	140		400	
	h _{FE2}	V _{CE} =−2V, I _C =−4A	60			
Gain-Bandwidth Product	f _T	V _{CE} =−5V, I _C =−200mA		320		MHz
Output Capacitance	C _{ob}	V _{CE} =−10V, f=1MHz		60		pF
C-E Saturation Voltage	V _{CE(sat)}	I _C =−3A, I _B =−60mA		−250	−500	mV
B-E Saturation Voltage	V _{BE(sat)}	I _C =−3A, I _B =−60mA		−1.0	−1.3	V
C-B Breakdown Voltage	V _{(BR)CBO}	I _C =−10μA, I _E =0	−25			V
C-E Breakdown Voltage	V _{(BR)CEO}	I _E =−1mA, R _{BE} =∞	−20			V
E-B Breakdown Voltage	V _{(BR)EBO}	I _E =−10μA, I _C =0	−5			V
Turn-ON Time	t _{on}	See sepcified Test Circuit		40		ns
Storage Time	t _{stg}	See sepcified Test Circuit		200		ns
Fall Time	t _f	See sepcified Test Circuit		10		ns
[SBD] (Value per element)						
Reverse Voltage	V _R	I _R =500μA	30			V
Forward Voltage	V _F	I _F =2A			0.55	V
Reverse Current	I _R	V _R =15V			100	μA
Interterminal Capacitance	C	V _R =10V, f=1MHz		70		pF
Reverse Recovery Time	trr	I _F =I _R =100mA, See specified Test Circuit			20	ns
Thermal Resistance	R _{thj-a}	Mounted on ceramic board (750mm²×0.8mm)		85		°C/W

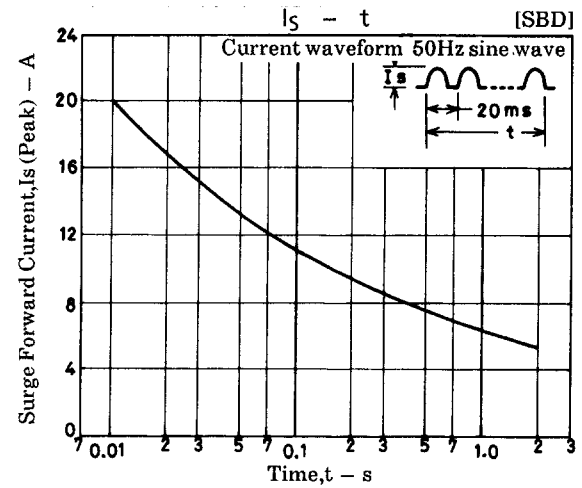
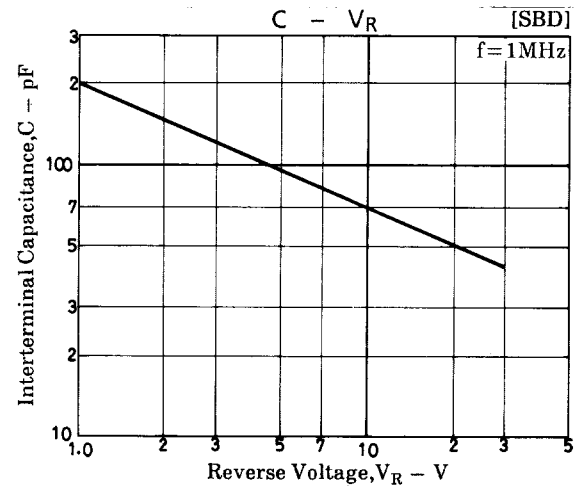
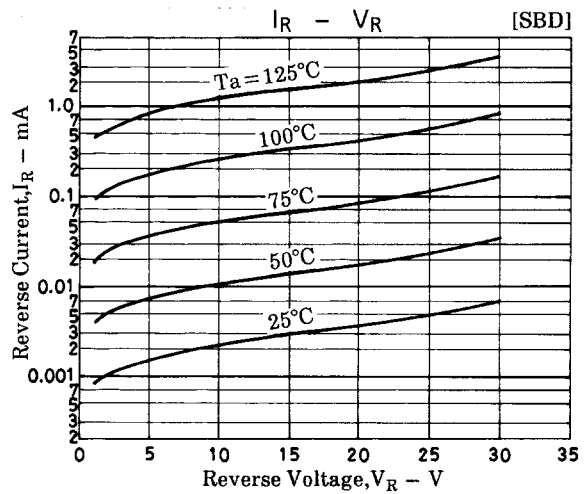
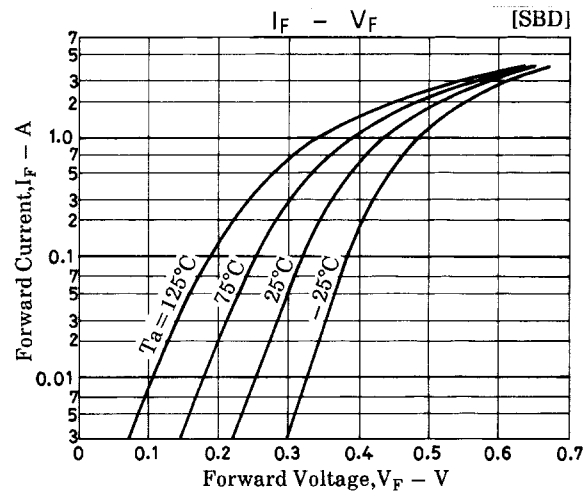
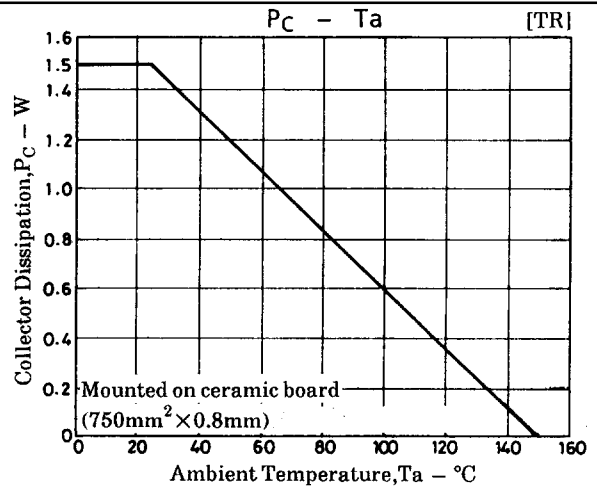
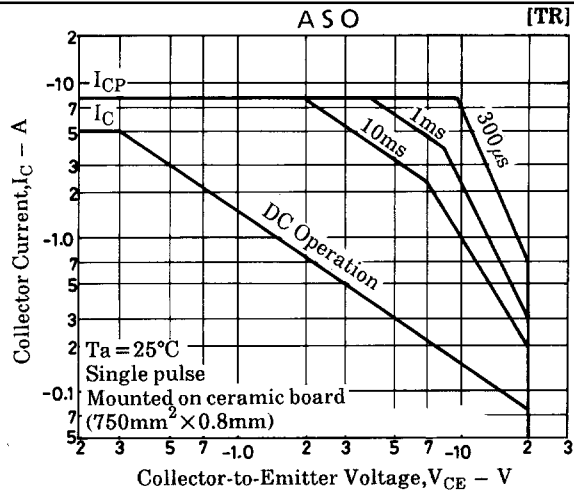
Switching Time Test Circuit



Trr Test Circuit







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