

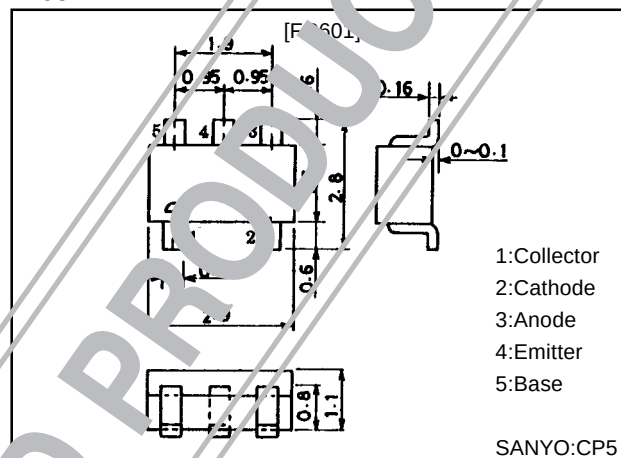
SANYO**FC601**TR:PNP Epitaxial Planar Silicon Transistor
SBD:Schottky Barrier Diode**DC-DC Converter Applications****Features**

- Composed of a Schottky barrier diode and a PNP transistor with built-in resistors, and contained in one CP package, resulting in greatly improved circuit-board using efficiency.
- The FC601 is composed of an equivalent chip to the SB007-03CP and an equivalent chip to the RA104C (R1=10k Ω , R2=47k Ω).

Package Dimensions

unit:mm

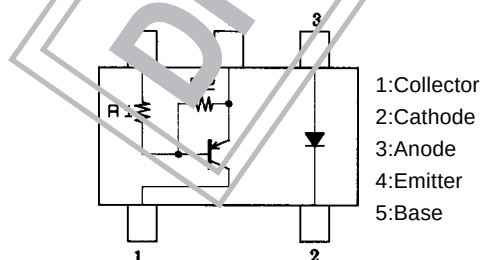
2105A

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

Parameter	Symbol	Conditions	Ratings	Unit
[TR]				
Collector-to-Base Voltage	V _{CBO}		-50	V
Collector-to-Emitter Voltage	V _{CEO}		-50	V
Emitter-to-Base Voltage	V _{EB0}		-6	V
Collector Current	I _C		-100	mA
Collector Dissipation	P _C		200	mW
Junction Temperature	T _j		150	°C
Storage Temperature	T _{stg}		-55 to +150	°C
[SBD]				
Repetitive Peak Reverse Voltage	V _{RRM}		30	V
Non-repetitive Peak Reverse Surge Voltage	V _{RSM}		35	V
Average Output Current	I _O		70	mA
Surge Forward Current	I _{FSM}	50Hz sine wave, 1cycle	2	A
Junction Temperature	T _j		-55 to +125	°C
Storage Temperature	T _{stg}		-55 to +125	°C

Marking:601

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Electrical Connection**SANYO Electric Co.,Ltd. Semiconductor Business Headquarters**

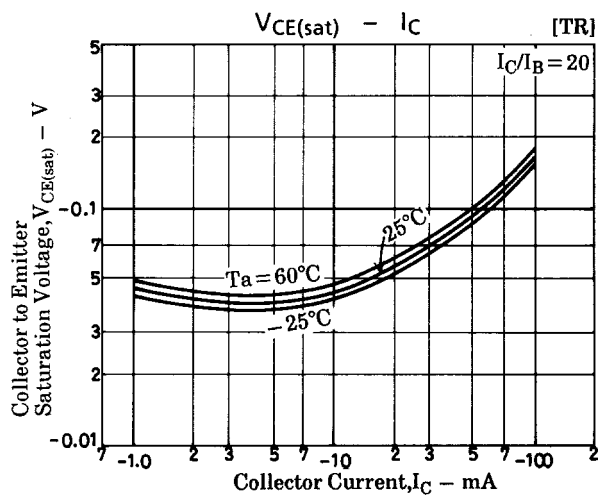
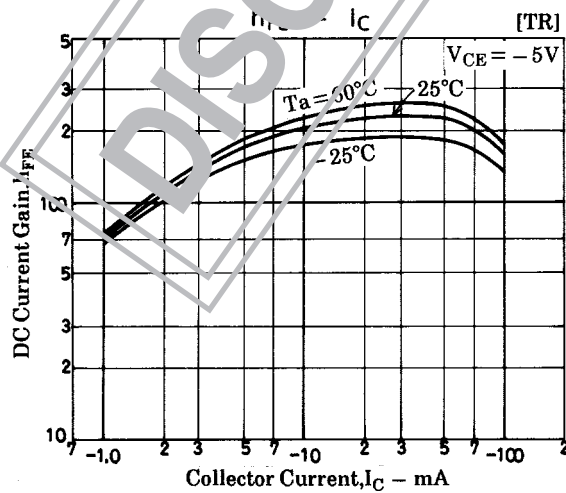
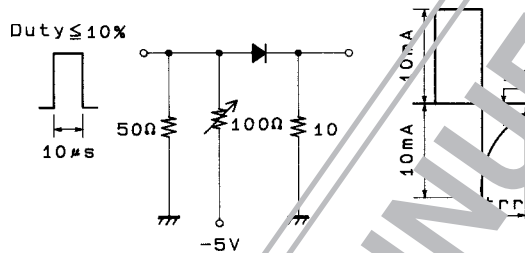
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

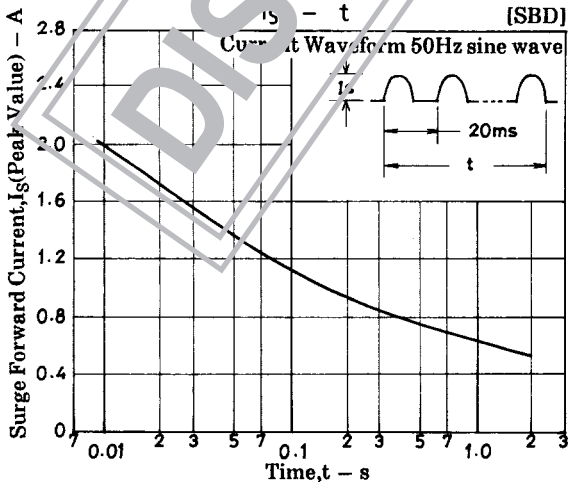
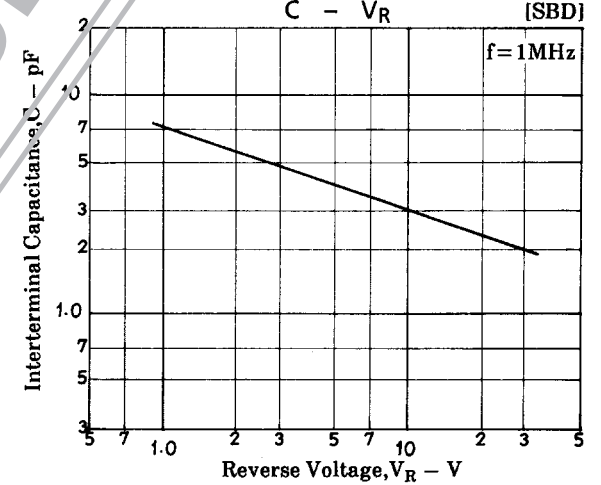
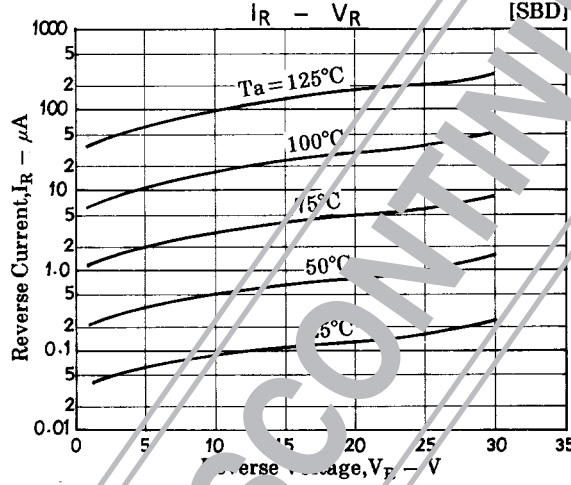
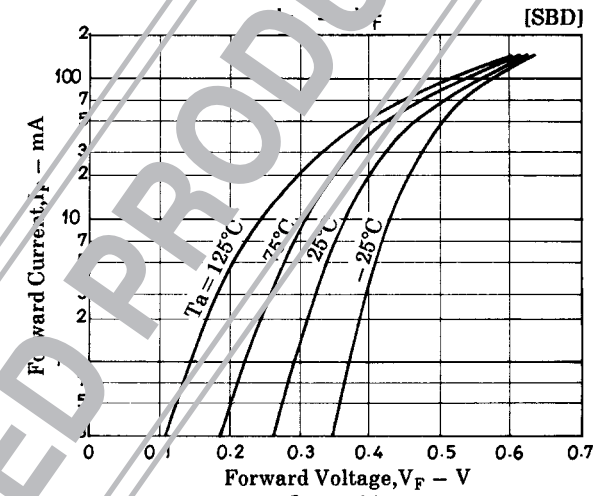
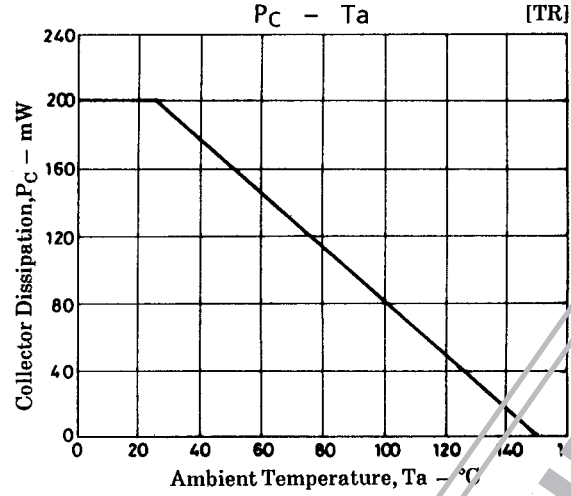
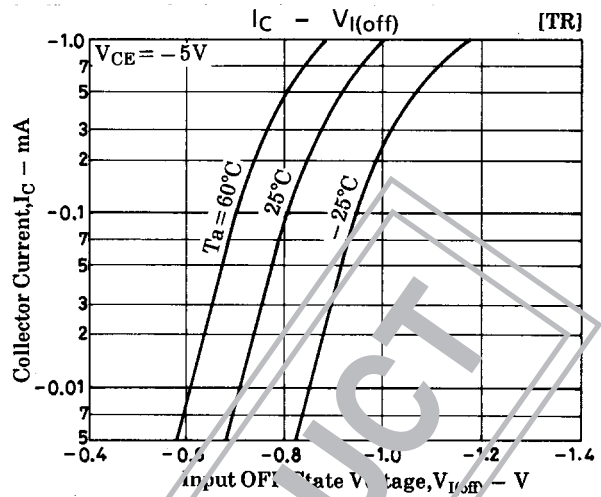
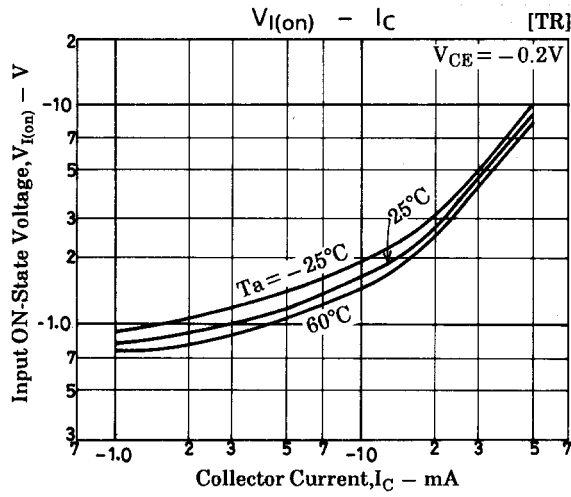
52098HA (KT)/41594TH (KOTO) B8-0026 No.4658-1/4

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

Parameter	Symbol	Conditons	Ratings			Unit
			min	typ	max	
[TR]						
Collector Cutoff Current	I _{CBO}	V _{CB} =−40V, I _E =0			−0.1	μA
Collector Cutoff Current	I _{CEO}	V _{CE} =−40V, I _B =0			−0.5	μA
Emitter Cutoff Current	I _{EBO}	V _{EB} =−5V, I _C =0	−67	−88	−125	μA
DC Current Gain	h _{FE}	V _{CE} =−5V, I _C =−5mA				
Gain-Bandwidth Product	f _T	V _{CE} =−10V, I _C =−5mA		200		MHz
Output Capacitance	C _{ob}	V _{CB} =−10V, f=1MHz		5.3		pF
C-E Saturation Voltage	V _{CE(sat)}	I _C =−10mA, I _B =−0.5mA		−0.1	−0.3	V
C-B Breakdown Voltage	V _{(BR)CBO}	I _C =−10μA, I _E =0				V
C-E Breakdown Voltage	V _{(BR)CEO}	I _C =−100μA, R _{BE} =∞	−50			V
Input OFF-State Voltage	V _{I(off)}	V _{CE} =−5V, I _C =−100μA	−0.6	−0.8	−1.0	V
Input ON-State Voltage	V _{I(on)}	V _{CE} =−0.2V, I _C =−5mA	−0.7	−1.0	−2.0	V
Input Resistance	R ₁		7	10	13	kΩ
Resistance Ratio	R ₁ /R ₂			0.213		
[SBD]						
Reverse Voltage	V _R	I _R =20μA	30			V
Forward Voltage	V _F	I _F =70mA			0.55	V
Reverse Current	I _R	V _R =15V			5	μA
Interterminal Capacitance	C	V _R =10V, f=1MHz		3.0		pF
Reverse Recovery Time	t _{rr}	I _F =I _R =10mA See specified Test Circuit			10	ns
Thermal Resistance	R _{thj-a}			620		°C/W

Trr Test Circuit



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