



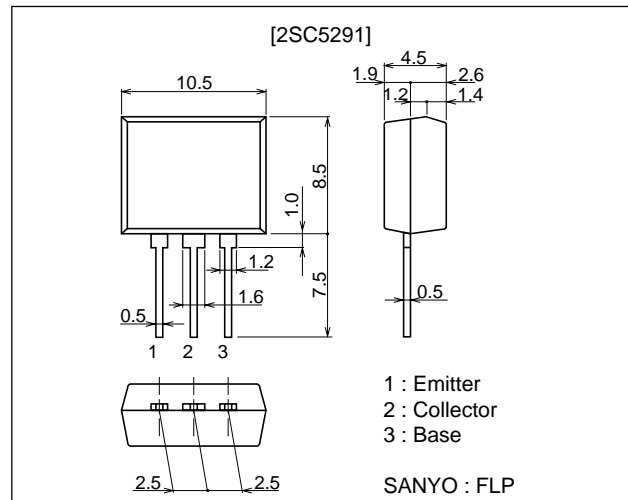
High-Voltage Switching Applications

Features

- Adoption of FBET, MBIT processes.
- Large current capacity.
- Can be provided in taping.
- 9.5mm onboard mounting height.

Package Dimensions

unit : mm
2084B



Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V _{CB0}		180	V
Collector-to-Emitter Voltage	V _{CEO}		160	V
Emitter-to-Base Voltage	V _{EB0}		6	V
Collector Current	I _C		1.5	A
Collector Current (Pulse)	I _{CP}		2.5	A
Base Current	I _B		300	mA
Collector Dissipation	P _C		1.5	W
Junction Temperature	T _J		150	°C
Storage Temperature	T _{stg}		-55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I _{CB0}	V _{CB} =120V, I _E =0			1.0	μA
Emitter Cutoff Current	I _{EB0}	V _{EB} =4V, I _C =0			1.0	μA

Continued on next page.

■ Any and all SANYO products described or contained herein do not have specifications that can handle applications that require extremely high levels of reliability, such as life-support systems, aircraft's control systems, or other applications whose failure can be reasonably expected to result in serious physical and/or material damage. Consult with your SANYO representative nearest you before using any SANYO products described or contained herein in such applications.

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2SC5291

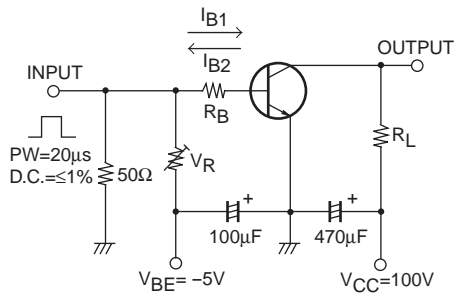
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
DC Current Gain	h_{FE1}	$V_{CE}=5V, I_C=100mA$	100		400	
	h_{FE2}	$V_{CE}=5V, I_C=10mA$	90			
Gain-Bandwidth Product	f_T	$V_{CE}=10V, I_C=50mA$		120		MHz
Output Capacitance	C_{ob}	$V_{CB}=10V, f=1MHz$		14		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=500mA, I_B=50mA$		0.13	0.45	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=500mA, I_B=50mA$		0.85	1.2	V
Turn-ON Time	t_{on}	See specified Test Circuit		4.0		ns
Storage Time	t_{stg}	See specified Test Circuit		1.2		μs
Fall Time	t_f	See specified Test Circuit		8.0		ns

* : The 2SC5291 is classified by 100mA h_{FE} as follows :

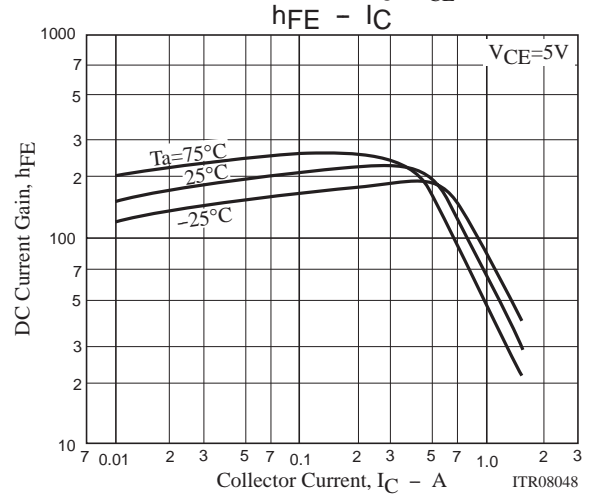
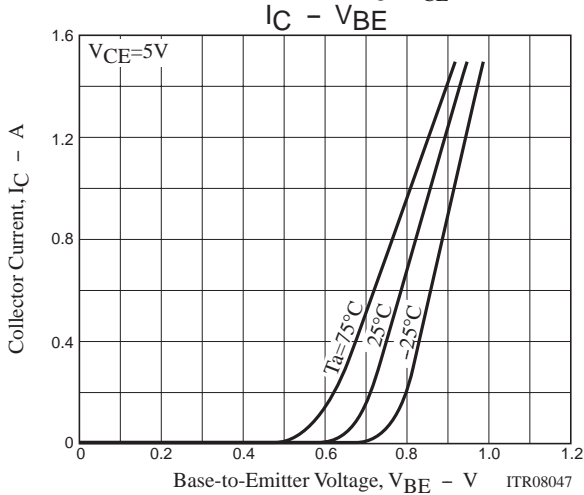
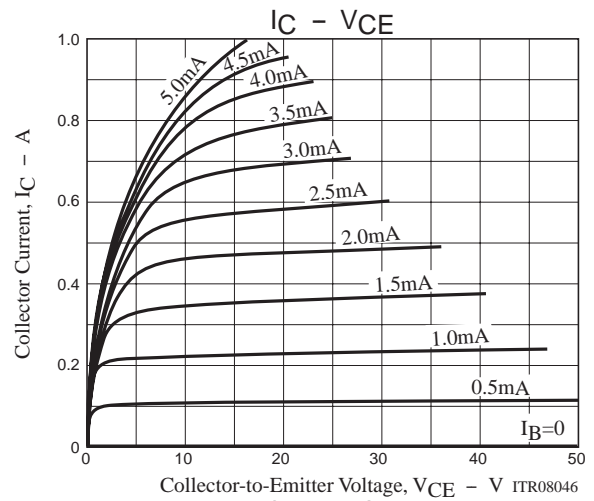
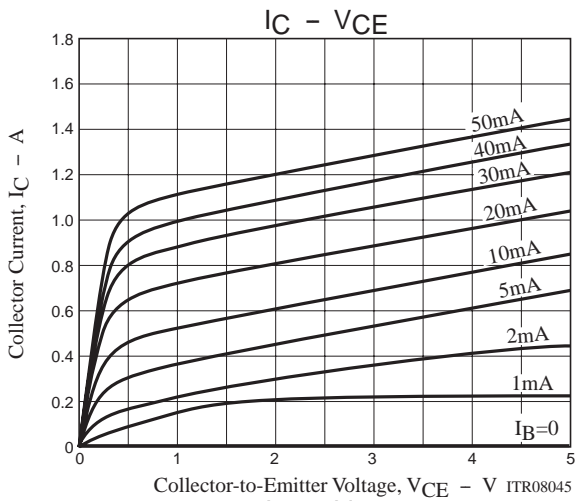
Rank	R	S	T
h_{FE}	100 to 200	140 to 280	200 to 400

Switching Time Test Circuit

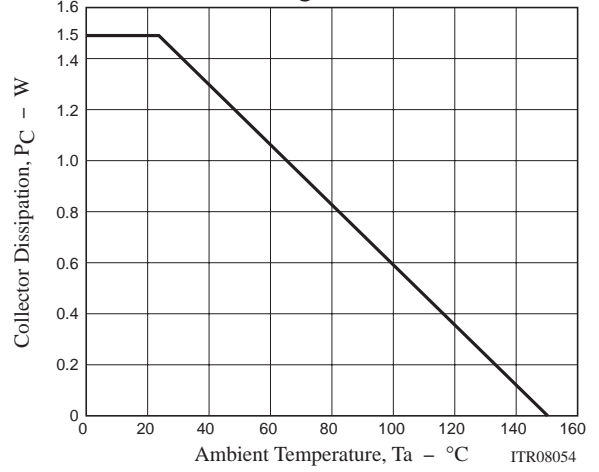
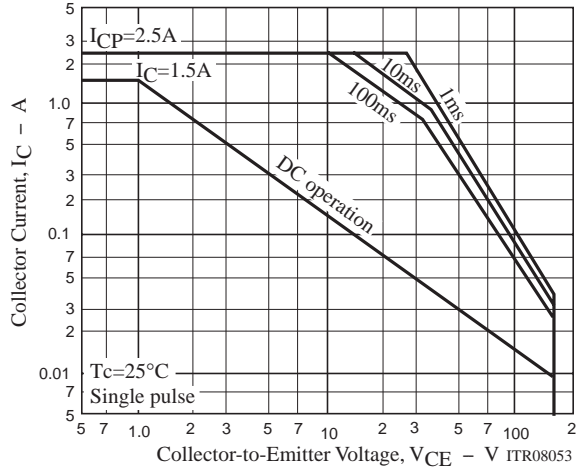
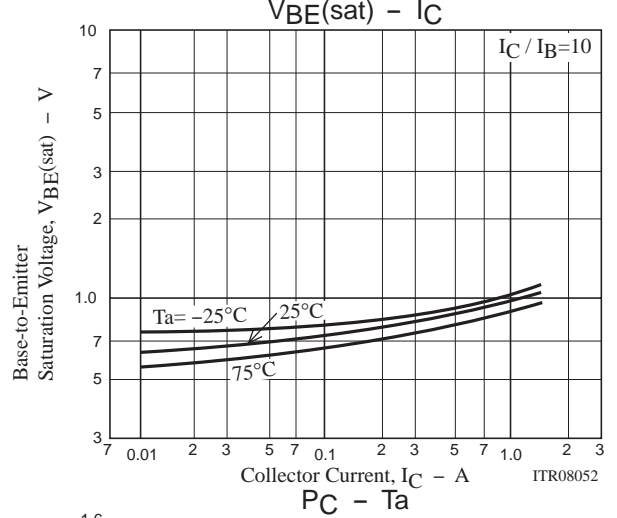
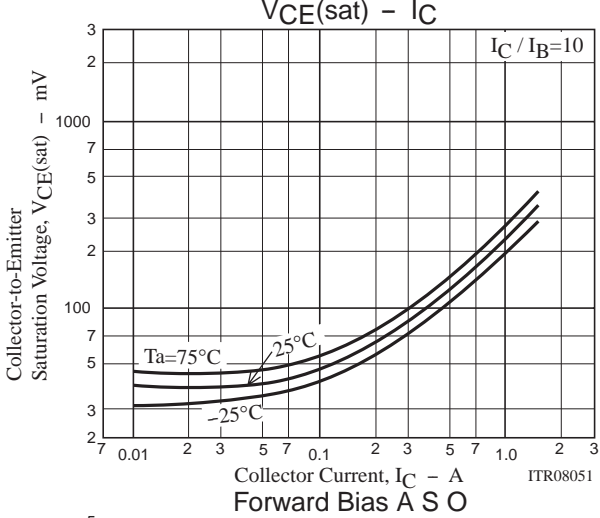
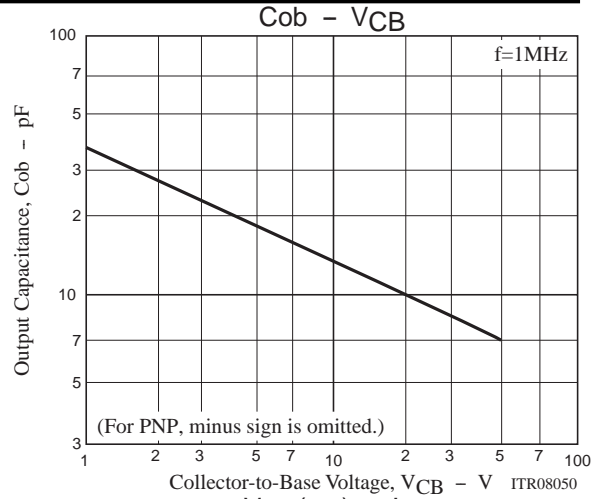
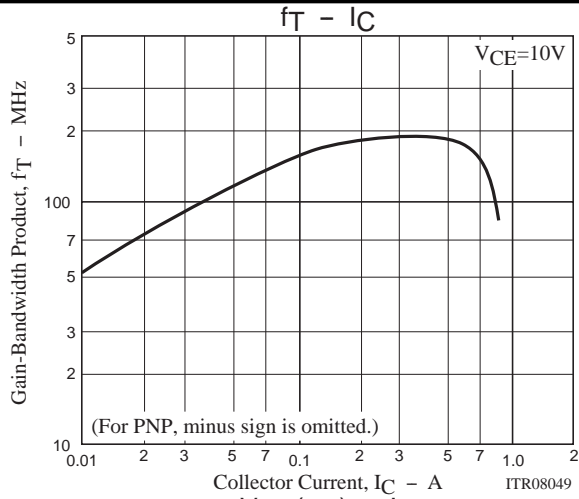


$$10I_{B1} = -10I_{B2} = I_C = 700mA$$

$$R_L = 140\Omega, R_B = 14\Omega \text{ at } I_C = 700mA$$



2SC5291



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