



2SC5291

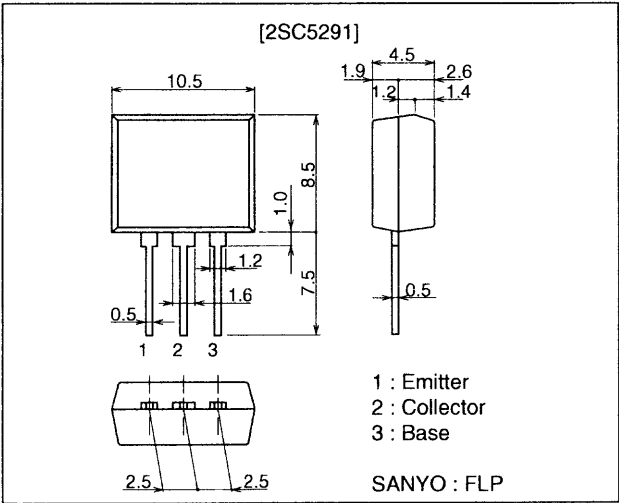
High-Voltage Switching Applications

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	VCBO		180	V
Collector-to-Emitter Voltage	VCEO		160	V
Emitter-to-Base Voltage	VEBO		6	V
Collector Current	IC		1.5	A
Collector Current (Pulse)	ICP		2.5	A
Base Current	IB		300	mA
Collector Dissipation	PC		1.5	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	ICBO	VCB=120V, IE=0			1.0	μA
Emitter Cutoff Current	IEBO	VEB=4V, IC=0			1.0	μA

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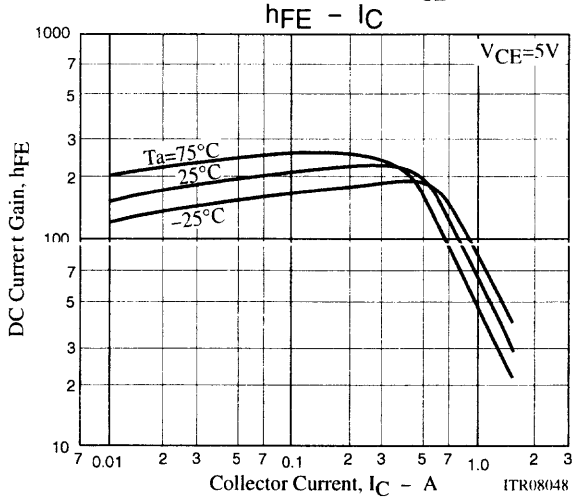
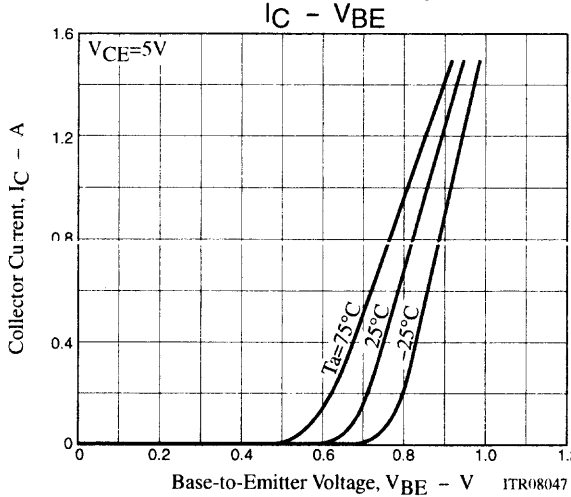
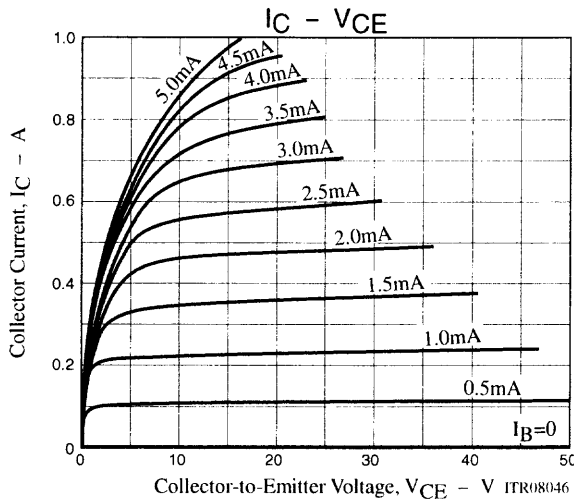
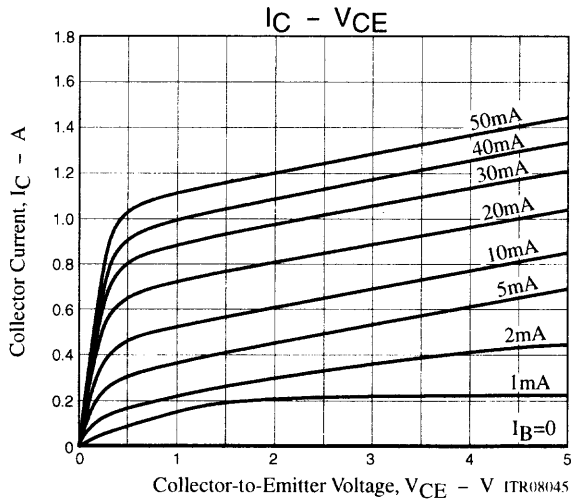
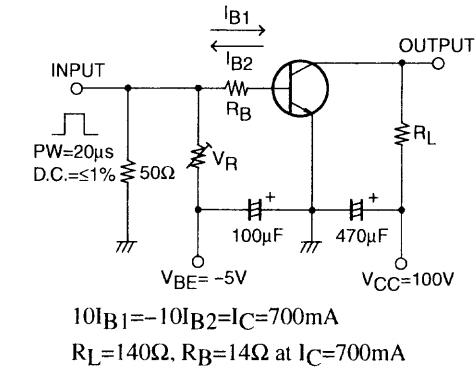
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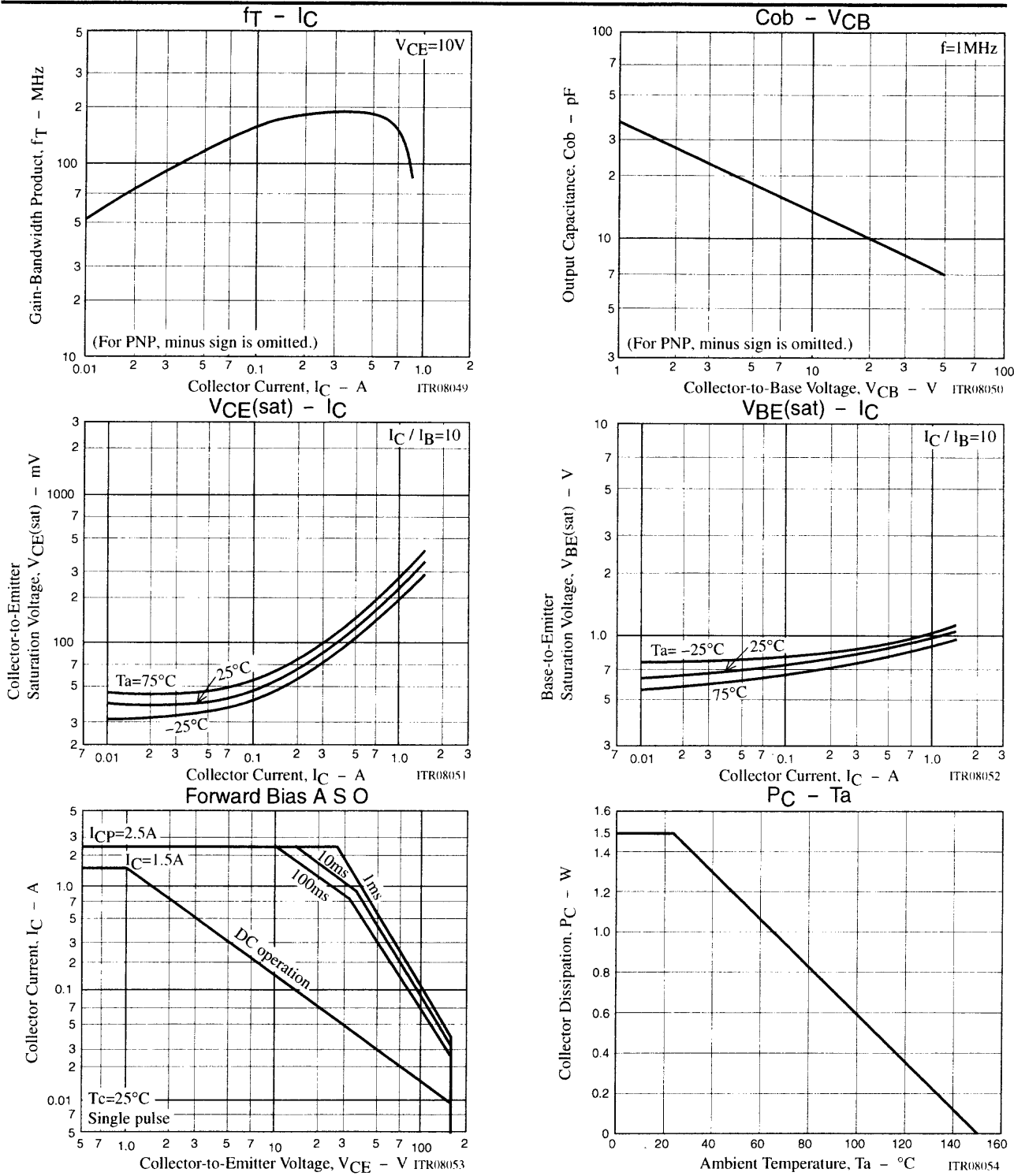
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
DC Current Gain	$h_{FE1}$	$V_{CE}=5V, I_C=100mA$	100		400	
	$h_{FE2}$	$V_{CE}=5V, I_C=10mA$	90			
Gain-Bandwidth Product	$f_T$	$V_{CE}=10V, I_C=50mA$		120		MHz
Output Capacitance	$C_{ob}$	$V_{CB}=10V, f=1MHz$		14		pF
Collector-to-Emitter Saturation 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





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