NPN Triple Diffused Planar Silicon Transistor

2SC5297



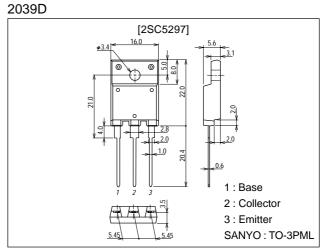
Ultrahigh-Definition CRT Display Horizontal Deflection Output Applications

Features

- · High speed : $t_f=100$ ns typ.
- \cdot High breakdown voltage : V_{CBO}=1500V.
- \cdot High reliability (Adoption of HVP process).
- · Adoption of MBIT process.

Package Dimensions

unit:mm



Specifications

Absolute Maximum Ratings at $Ta = 25^{\circ}C$

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V _{CBO}		1500	V
Collector-to-Emitter Voltage	VCEO		800	V
Emitter-to-Base Voltage	VEBO		6	V
Collector Current	IC		8	Α
Collector Current (Pulse)	ICP		16	A
Collector Dissipation	PC		3.0	W
		Tc=25°C	60	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	Unit
Collector Cutoff Current	ICBO	V _{CB} =800V, I _E =0			10	μA
	ICES	V _{CE} =1500V, R _{BE} =0			1.0	mA
Collector-to-Emitter Sustain Voltage	VCEO(sus)	I _C =100mA, I _B =0	800			V
Emitter Cutoff Current	IEBO	$V_{EB}=4V, I_{C}=0$			1.0	mA
Collector-to-Emitter Saturation Voltage	V _{CE(sat)}	I _C =5A, I _B =1.25A			5	V
Base-to-Emitter Saturation Voltage	V _{BE(sat)}	I _C =5A, I _B =1.25A			1.5	V

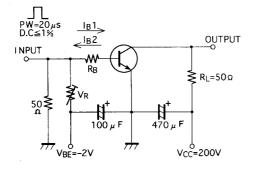
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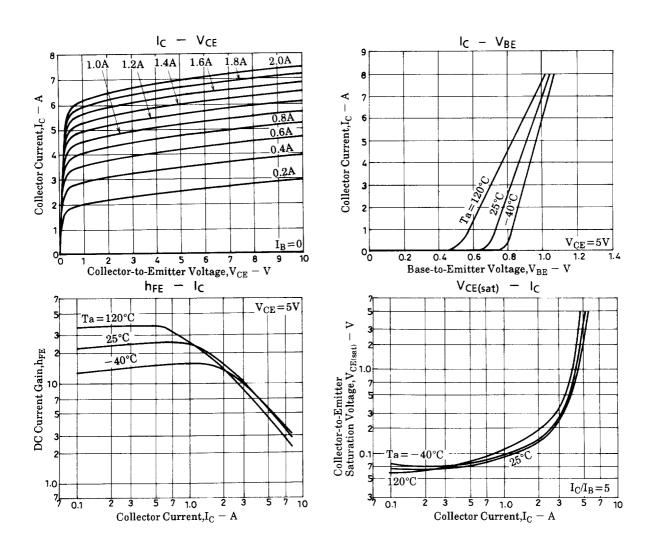
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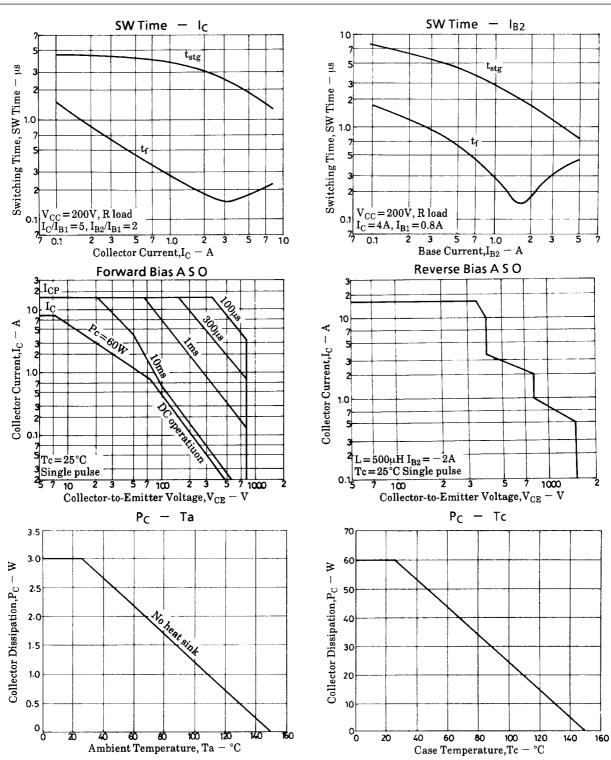
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Unit
DC Current Gain	h _{FE} 1	V _{CE} =5V, I _C =1A	20		30	
	h _{FE} 2	V _{CE} =5V, I _C =5A	4		7	
Storage Time	^t stg	I _C =4A, I _{B1} =0.8A, I _{B2} =-1.6A			3.0	μs
Fall Time	t _f	I _C =4A, I _{B1} =0.8A, I _{B2} =-1.6A	0.1		0.2	μs

Switching Time Test Circuit







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