NPN Triple Diffused Planar Silicon Transistor



2SC5043

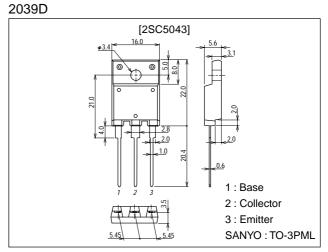
Ultrahigh-Definition CRT Display Horizontal Deflection Output Applications

Features

- \cdot High speed (t_f=100ns typ).
- \cdot High reliability (HVP process).
- \cdot High breakdown voltage (V_{CBO}=1600V).
- · Adoption of MBIT process.
- · On-chip damper diode.

Package Dimensions

unit:mm



Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V _{CBO}		1600	V
Collector-to-Emitter Voltage	VCEO		800	V
Emitter-to-Base Voltage	VEBO		6	V
Collector Current	IC		10	A
Collector Current (Pulse)	ICP		25	A
Collector Dissipation	PC		3.0	W
		Tc=25°C	70	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta = 25°C

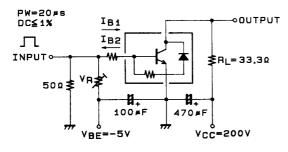
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Onit
Collector Cutoff Current	ICBO	V _{CB} =800V, I _E =0			10	μΑ
	ICES	V _{CE} =1600V, R _{BE} =0			1.0	mA
Collector-to-Emitter Sastain Voltage	VCEO(sus)	I _C =100mA, I _B =0	800			V
Emitter Cutoff Current	IEBO	V _{EB} =4V, I _C =0	40		130	mA
Collector-to-Emitter Saturation Voltage	VCE(sat)	I _C =8A, I _B =2A			5	V
Base-to-Emitter Saturation Voltage	V _{BE(sat)}	I _C =8A, I _B =2A			1.5	V

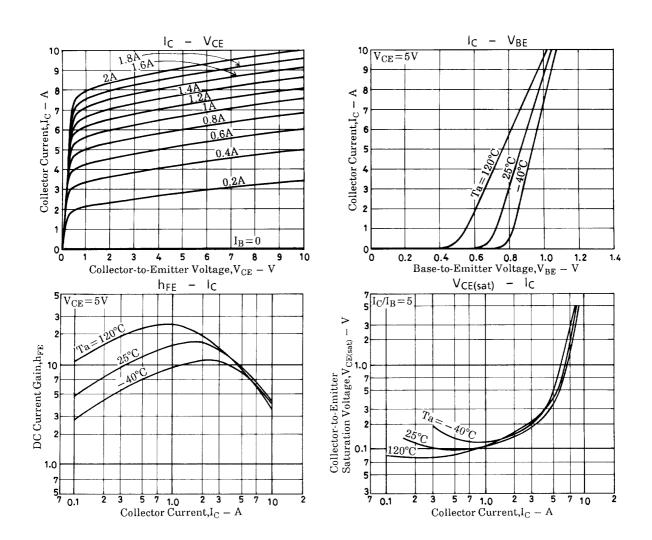
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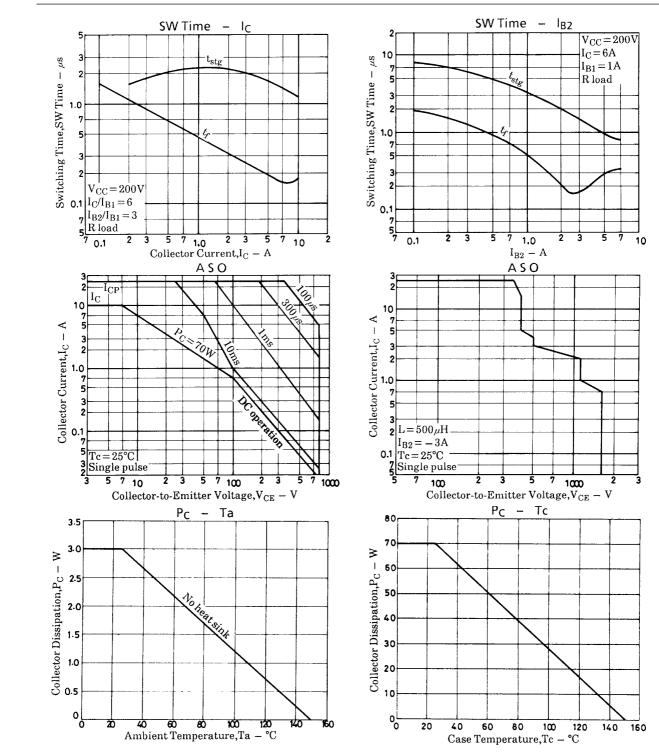
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Unit
DC Current Gain	h _{FE} 1	V _{CE} =5V, I _C =1A	10		20	
	h _{FE} 2	V _{CE} =5V, I _C =8A	4		7	
Storage Time	^t stg	I _C =6A, I _{B1} =1.0A, I _{B2} =-3.0A			2.0	μs
Fall Time	t _f	I _C =6A, I _{B1} =1.0A, I _{B2} =-3.0A		0.1	0.2	μs

Switching Time Test Circuit







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