

2SC5042

Ultrahigh-Definition CRT Display Horizontal Deflection Output Applications

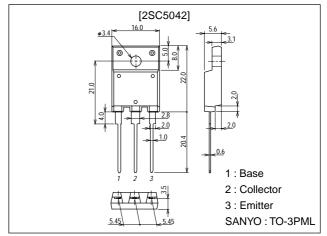
Features

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

Package Dimensions

unit:mm

2039D



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	V _{EBO}		6	V
Collector Current	IC		7	Α
Collector Current (Pulse)	I _{CP}		16	Α
Collector Dissipation	PC		3.0	W
		Tc=25°C	60	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

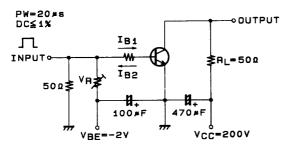
Electrical Characteristics at Ta = 25°C

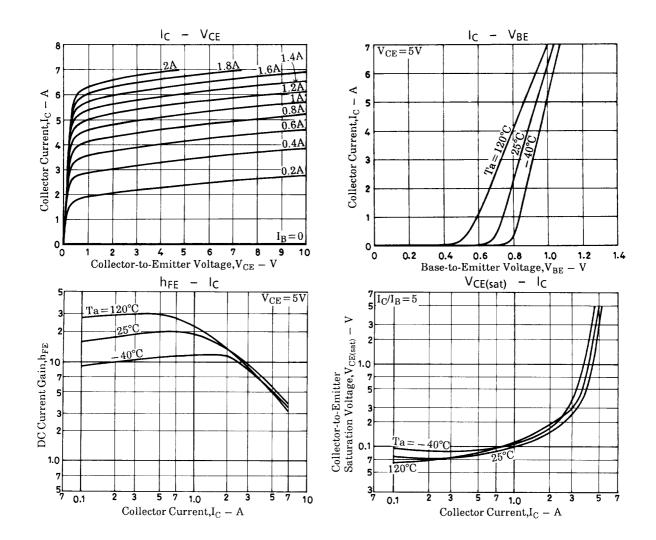
Parameter	Symbol	Conditions		Ratings		
	Symbol		min	typ	max	Unit
Collector Cutoff Current	I _{CBO}	V _{CB} =800V, I _E =0			10	μA
	ICES	V _{CE} =1600V, R _{BE} =0			1.0	mA
Collector-to-Emitter Sastain Voltage	V _{CEO(sus)}	I _C =100mA, I _B =0	800			V
Emitter Cutoff Current	IEBO	V _{EB} =4V, I _C =0			1.0	mA
Collector-to-Emitter Saturation Voltage	VCE(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

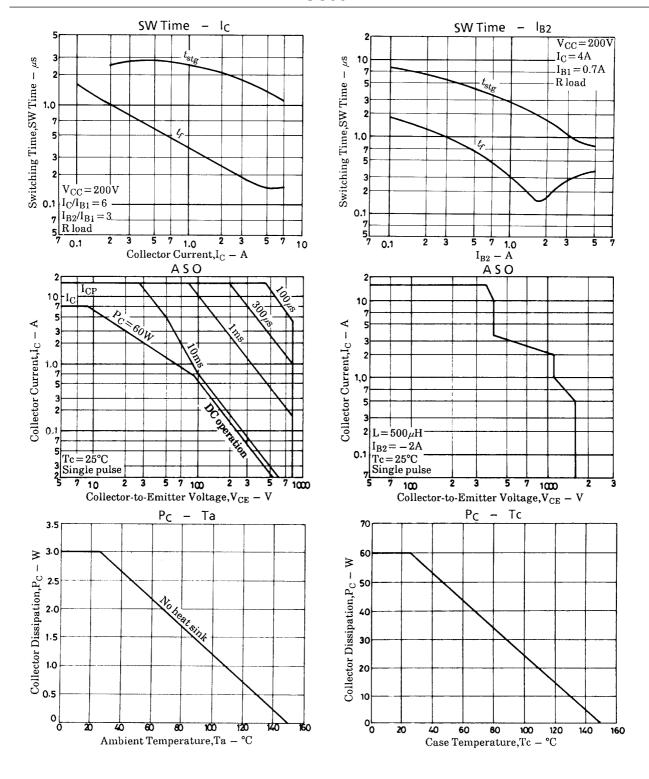
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	01111
DC Current Gain	h _{FE} 1	V _{CE} =5V, I _C =1A	15		25	
	h _{FE} 2	V _{CE} =5V, I _C =5A	4		7	
Storage Time	t _{stg}	I _C =4A, I _{B1} =0.7A, I _{B2} =-2.0A			2.0	μs
Fall Time	t _f	I _C =4A, I _{B1} =0.7A, I _{B2} =-2.0A		0.1	0.2	μs

Switching Time Test Circuit







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