

No.4137

2 S C 4 8 9 0

NPN Triple Diffused Planar Silicon Transistor

Very High-Definition CRT Display Horizontal Deflection Output Applications

Features

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

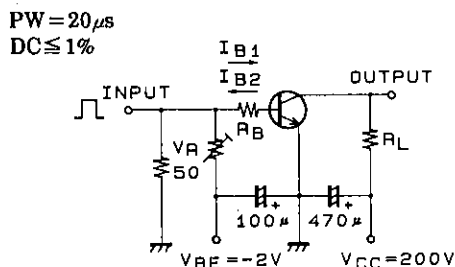
Absolute Maximum Ratings at Ta=25°C

Absolute Maximum Ratings at Ta = 25°C			unit
Collector-to-Base Voltage	V _{CB0}	1500	V
Collector-to-Emitter Voltage	V _{CEO}	800	V
Emitter-to-Base Voltage	V _{EB0}	6	V
Collector Current	I _C	12	A
Peak Collector Current	i _{cp}	30	A
Collector Dissipation	P _C	3.0	W
		75	W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	− 55 to + 150	°C

Electrical Characteristics at $T_a = 25^\circ\text{C}$

Electrical Characteristics at Ta = 25°C			min	typ	max	unit
Collector Cutoff Current	ICBO	VCE = 800V, IE = 0			10	μA
Collector Cutoff Current	ICES	VCE = 1500V, RBE = 0			1.0	mA
Collector Sustain Voltage	VCEO(sus)	IC = 100mA, IB = 0	800			V
Emitter Cutoff Current	IEBO	VEB = 4V, IC = 0			1.0	mA
C-E Saturation Voltage	VCE(sat)	IC = 10A, IB = 2.5A			5	V
B-E Saturation Voltage	VBE(sat)	IC = 10A, IB = 2.5A			1.5	V
DC Current Gain	hFE(1)	VCE = 5V, IC = 1.0A	8		30	
	hFE(2)	VCE = 5V, IC = 10A	4		8	
Storage Time	tstg	IC = 8A, IB1 = 1.6A, IB2 = -3.2A			3.0	μs
Fall Time	tf	IC = 8A, IB1 = 1.6A, IB2 = -3.2A			0.2	μs

Switching Time Test Circuit

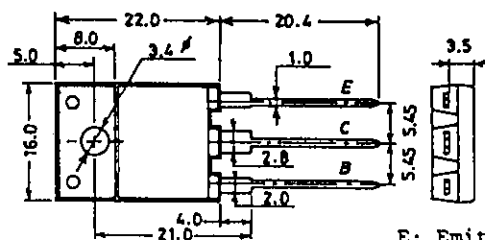


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Unit (resistance: Ω , capacitance:F)

Package Dimensions 2039A

(unit: mm)



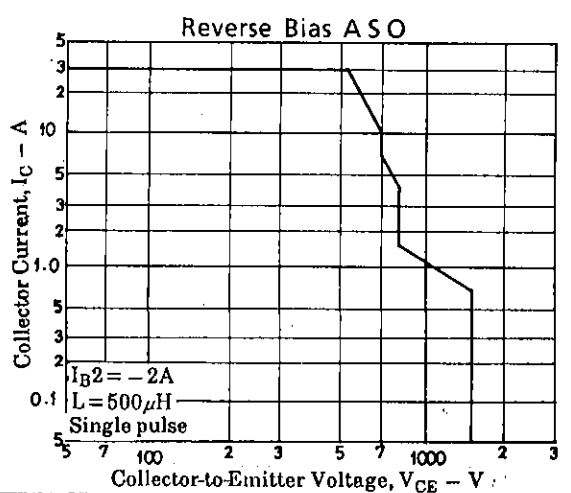
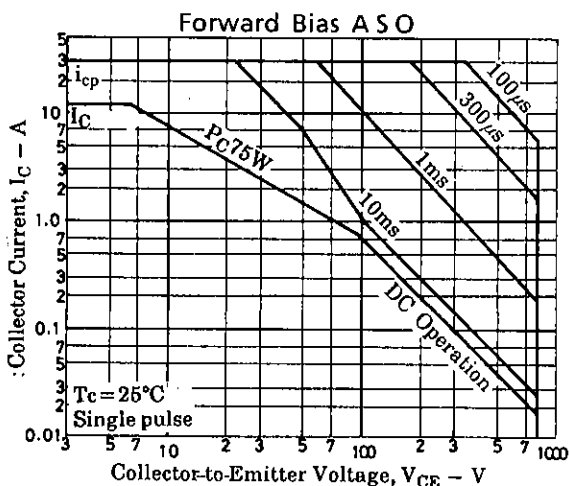
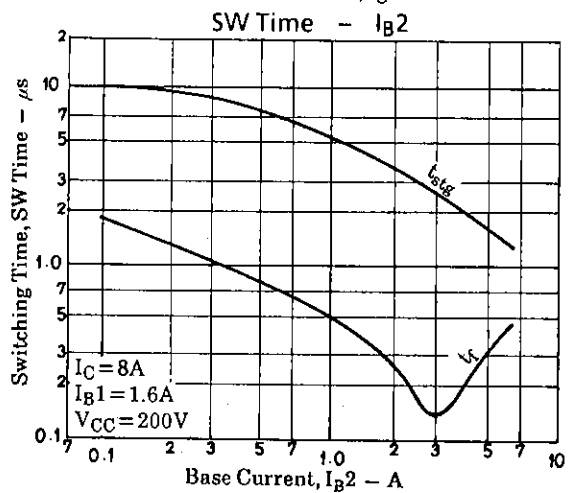
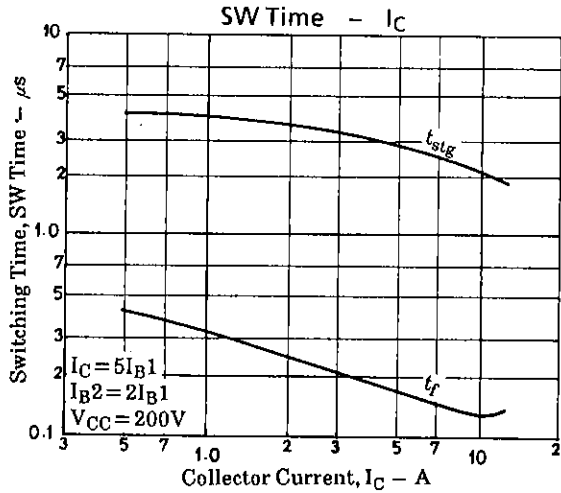
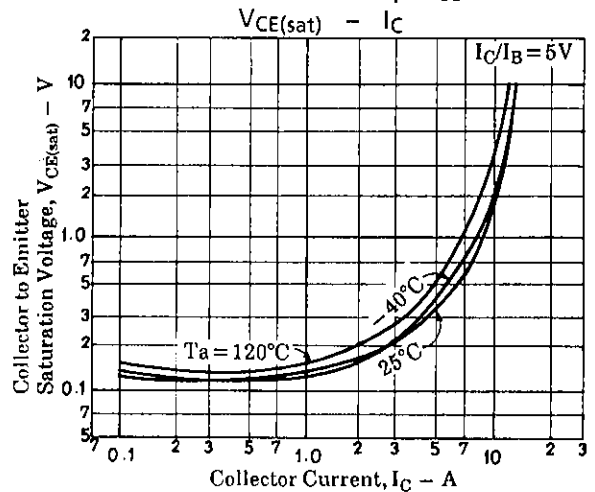
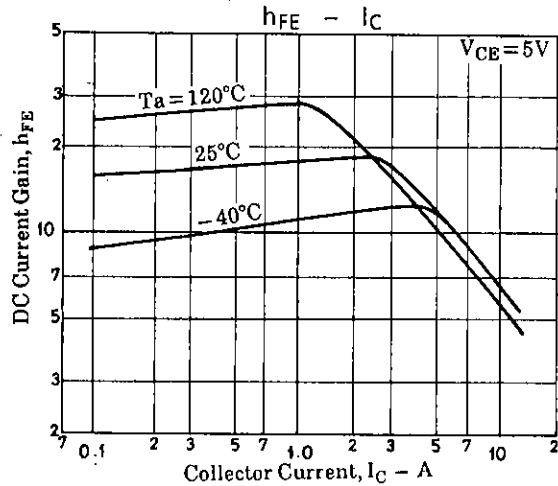
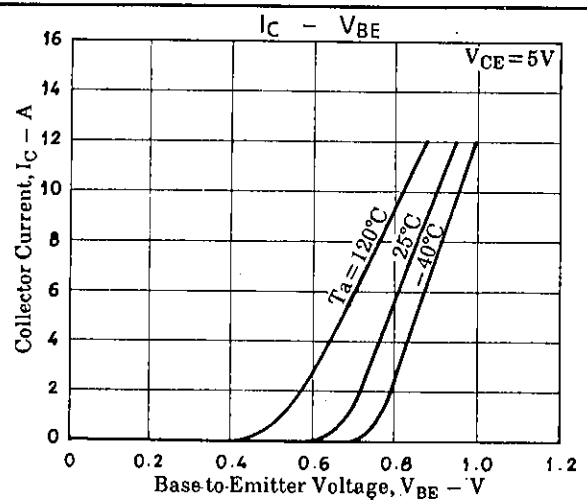
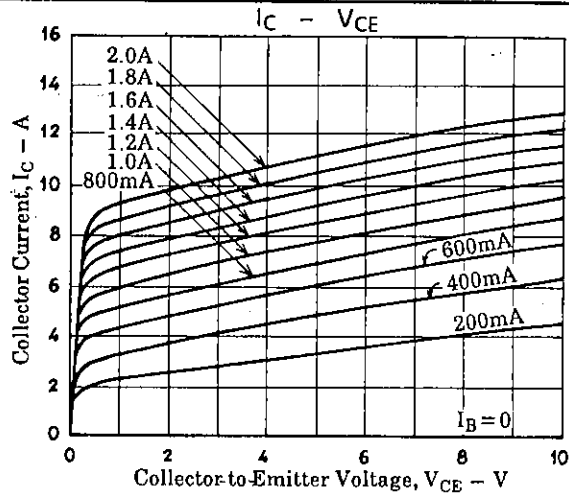
E: Emitter
C: Collector
B: Base

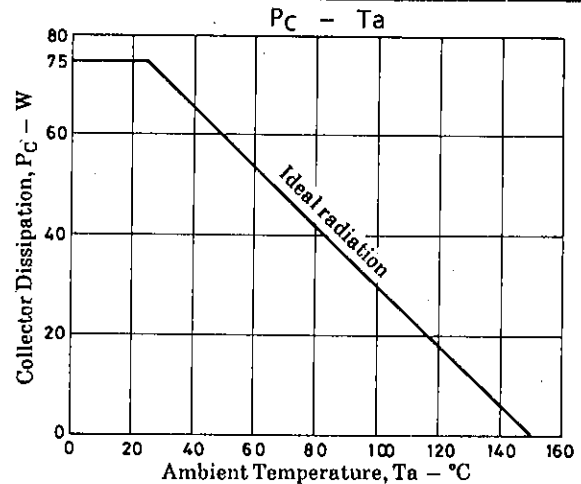
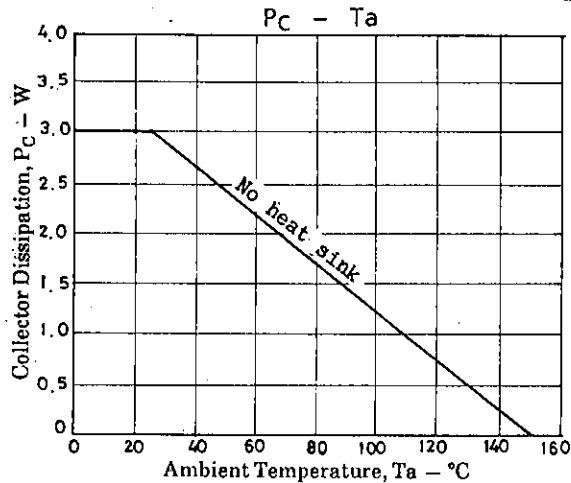
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