

**2SC4440**

Ultrahigh-Definition Monochrome Display Horizontal Deflection Output Applications

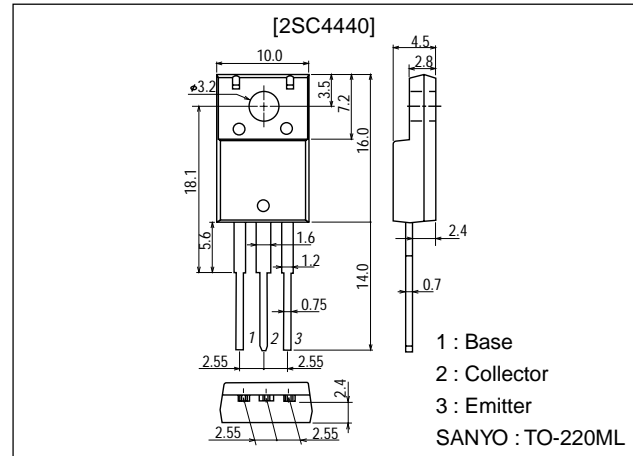
Features

- High reliability (Adoption of HVP process).
- Fast switching speed.
- High brocking voltage.
- Wide ASO.
- Adoption of MBIT process.
- Micaless package facilitating easy mounting.

Package Dimensions

unit:mm

2041A



Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CB0}		600	V
Collector-to-Emitter Voltage	V_{CE0}		400	V
Emitter-to-Base Voltage	V_{EBO}		7	V
Collector Current	I_C		7	A
Collector Current (Pulse)	I_{CP}	$PW \leq 300\mu s$, duty cycle $\leq 10\%$	14	A
Collector Dissipation	P_C		2.0	W
		$T_c = 25^\circ C$	30	W
Junction Temperature	T_J		150	$^\circ C$
Storage Temperature	T_{stg}		-55 to +150	$^\circ C$

Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB} = 400V$, $I_E = 0$			10	μA
	I_{CES}	$V_{CE} = 600V$			0.5	mA
Collector-to-Emitter Sustain Voltage	$V_{CEO(sus)}$	$I_C = 100mA$, $I_B = 0$	400			V
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 5V$, $I_C = 0$			1	mA
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 4A$, $I_B = 0.8A$			0.8	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 4A$, $I_B = 0.8A$			1.5	V

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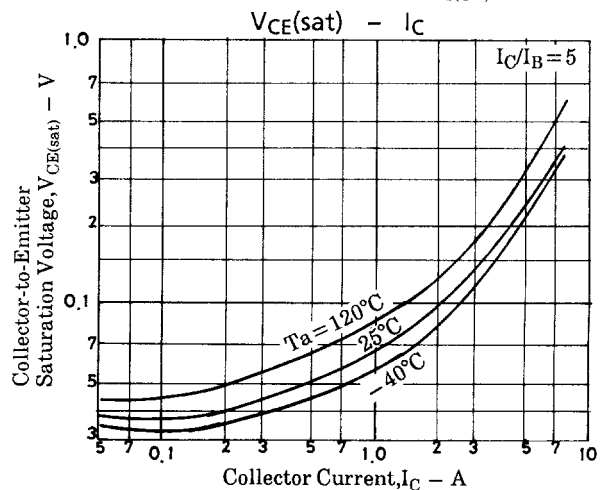
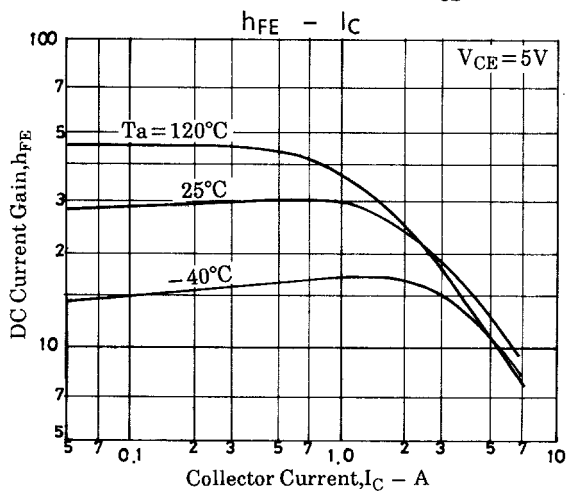
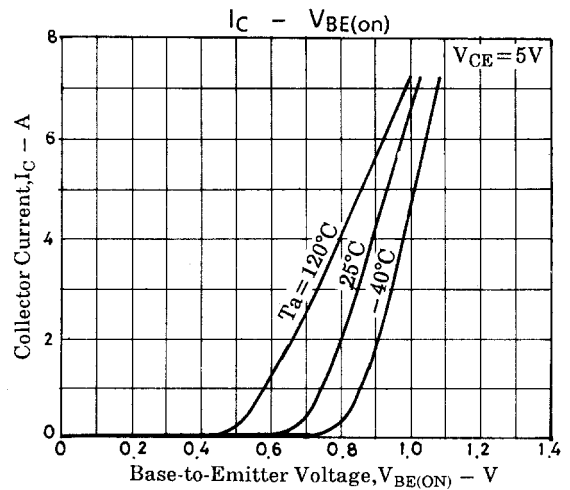
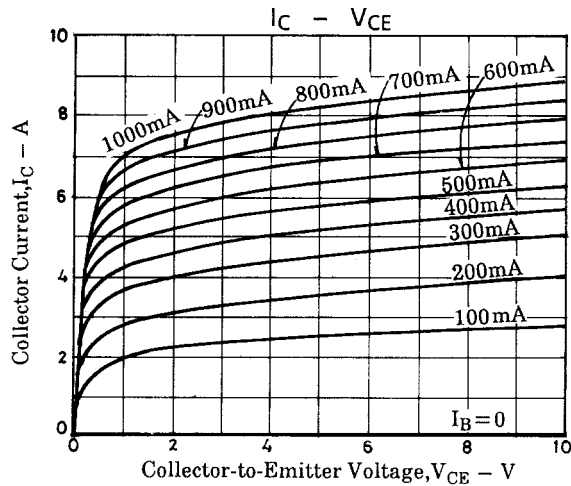
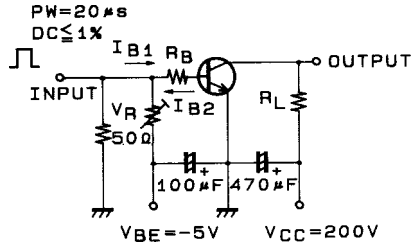
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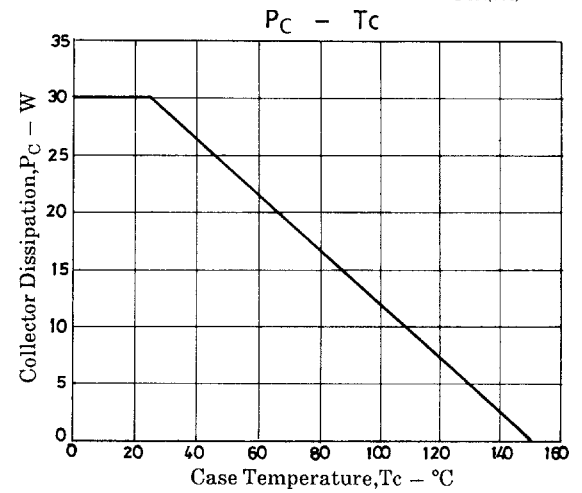
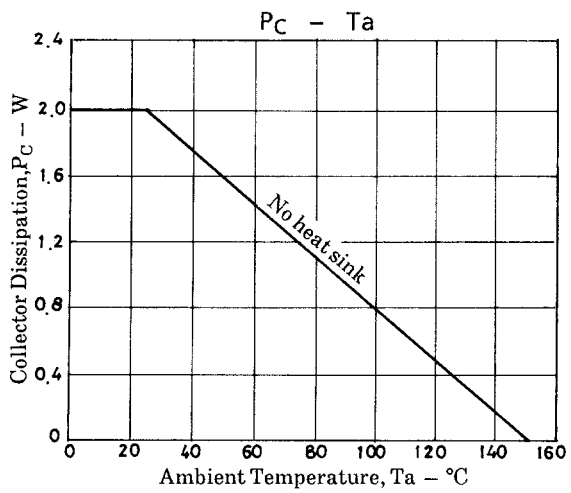
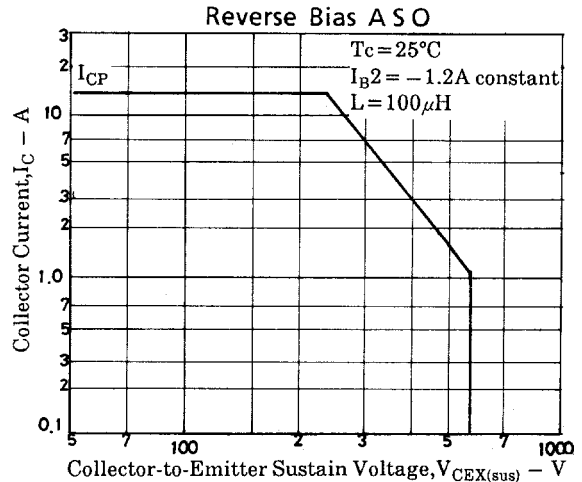
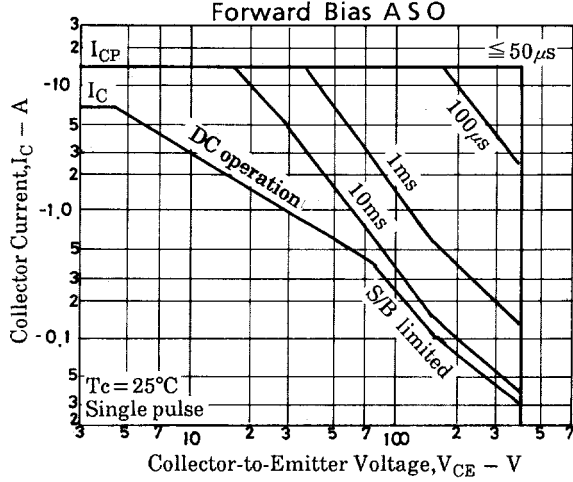
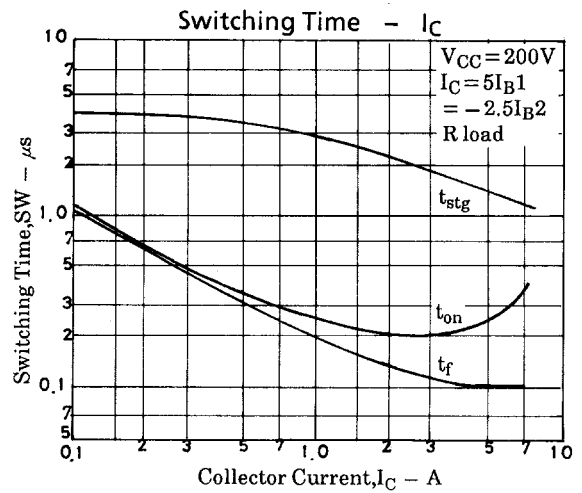
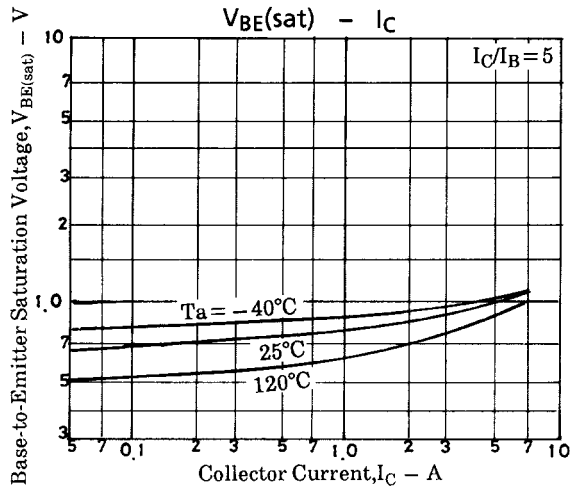
2SC4440

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
DC Current Gain	h_{FE1}	$V_{CE}=5V, I_C=0.8A$	15			
	h_{FE2}	$V_{CE}=5V, I_C=4A$	10		20	
Gain-Bandwidth Product	f_T	$V_{CE}=10V, I_C=0.8A$		20		MHz
Storage Time	t_{stg}	$I_C=5A, I_{B1}=1A, I_{B2}=-2A, R_L=40\Omega, V_{CC}=200V$			3.0	μs
Fall Time	t_f	$I_C=5A, I_{B1}=1A, I_{B2}=-2A, R_L=40\Omega, V_{CC}=200V$			0.2	μs

Switching Time Test Circuit



2SC4440



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