

**2SC4441**

## Ultrahigh-Definition Monocuro Display Horizontal Deflection Output Applications

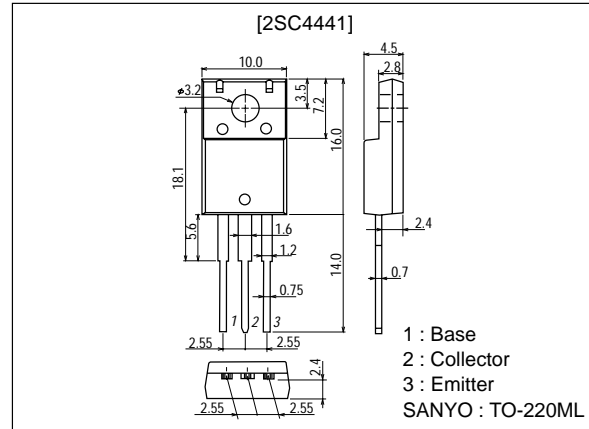
### Features

- High reliability (Adoption of HVP process).
- High-speed switching.
- High breakdown voltage.
- Wide ASO.
- Adoption of MBIT process.
- Attachment workability is good by Mica-less package.

### Package Dimensions

unit:mm

2041A



### Specifications

#### Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	$V_{CB0}$		600	V
Collector-to-Emitter Voltage	$V_{CEO}$		400	V
Emitter-to-Base Voltage	$V_{EBO}$		7	V
Collector Current	$I_C$		10	A
Collector Current (Pulse)	$I_{CP}$	$PW \leq 300\mu\text{s}$ , Duty Cycle $\leq 10\%$	20	A
Collector Dissipation	$P_C$		2.0	W
		$T_c = 25^\circ\text{C}$	35	W
Junction Temperature	$T_j$		150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = 400\text{V}$ , $I_E = 0$			10	$\mu\text{A}$
	$I_{CES}$	$V_{CE} = 600\text{V}$			0.5	mA
Collector-to-Emitter Sustain Voltage	$V_{CEO(sus)}$	$I_C = 100\text{mA}$ , $I_B = 0$	400			V
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 5\text{V}$ , $I_C = 0$			1	mA
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 6\text{A}$ , $I_B = 1.2\text{A}$			0.8	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 6\text{A}$ , $I_B = 1.2\text{A}$			1.5	V

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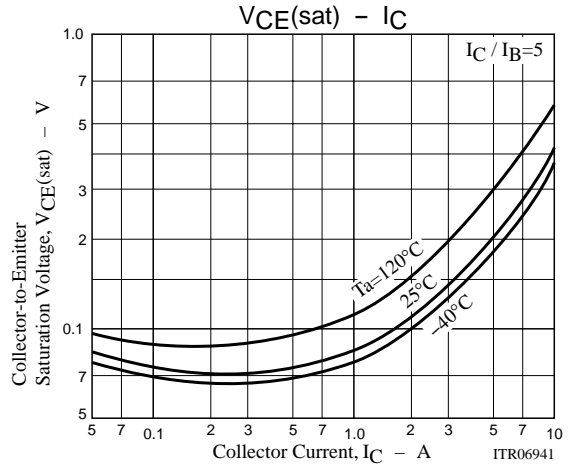
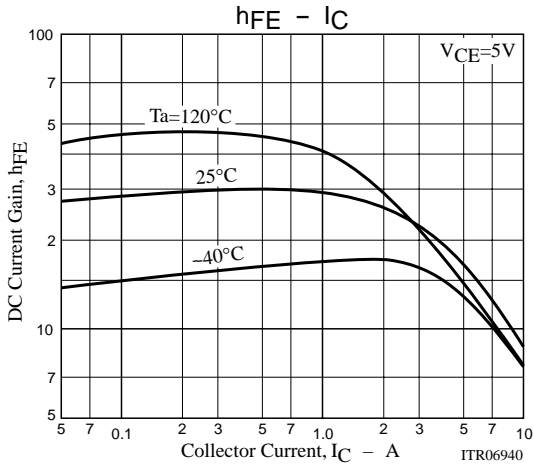
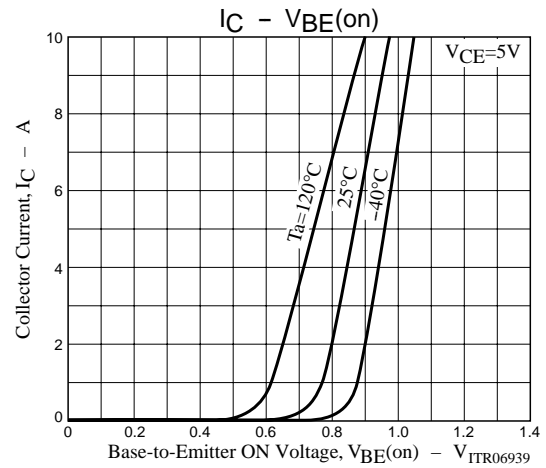
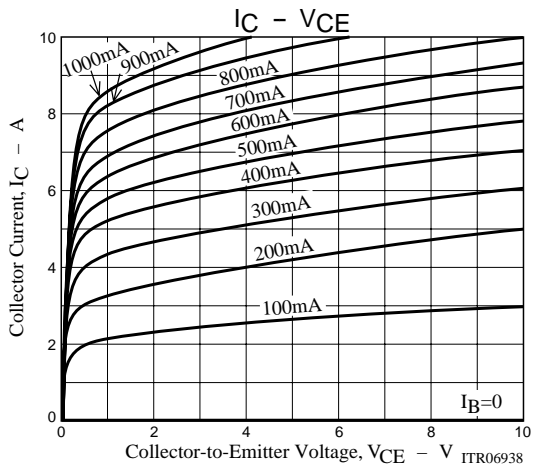
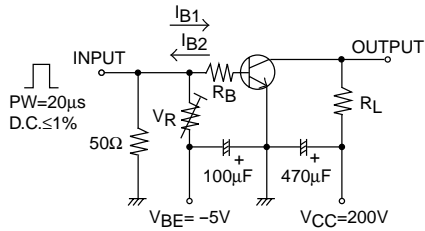
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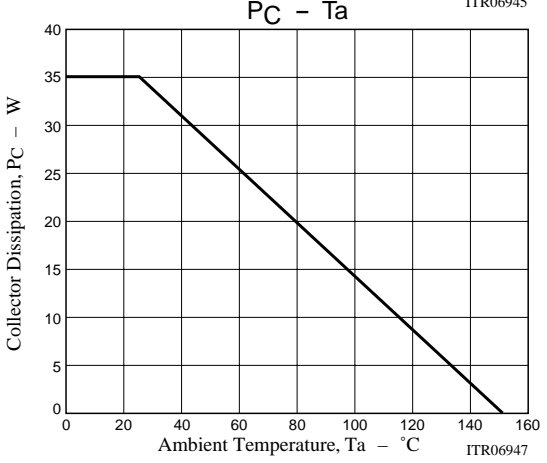
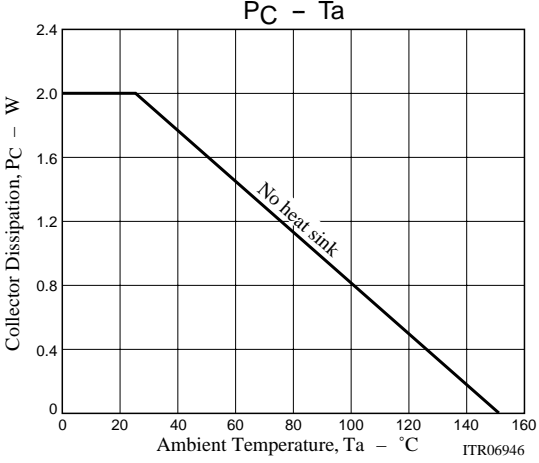
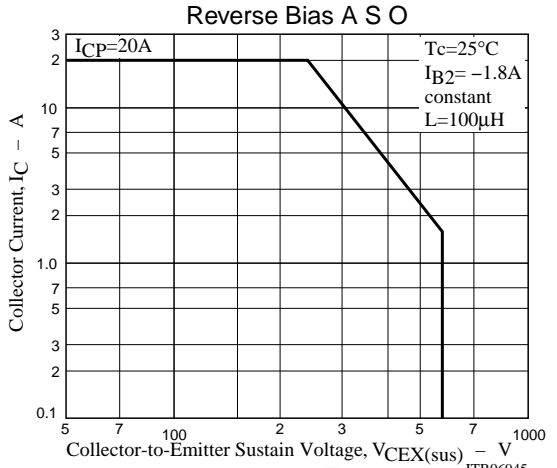
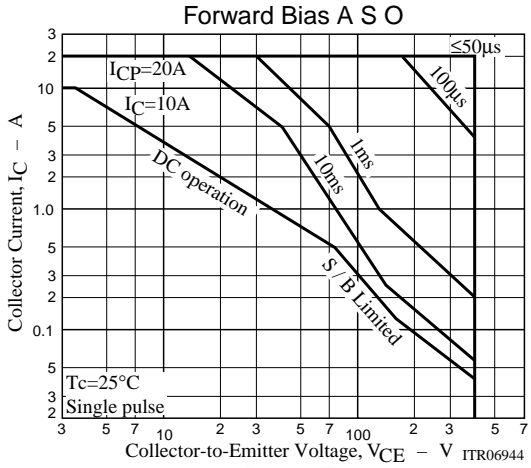
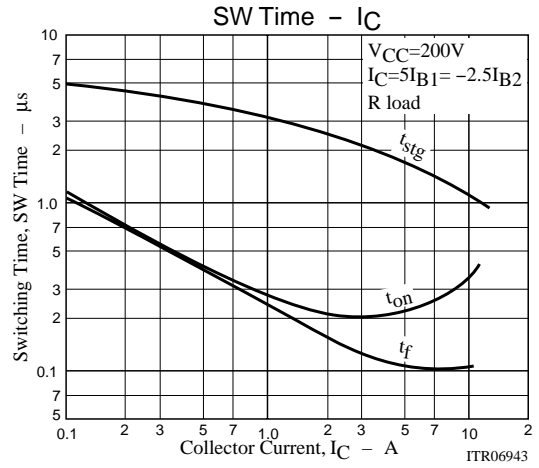
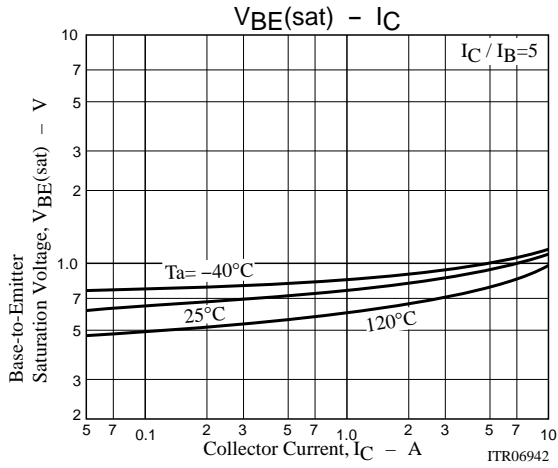
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
DC Current Gain	$h_{FE1}$	$V_{CE}=5V, I_C=1.2A$	15			
	$h_{FE2}$	$V_{CE}=5V, I_C=6A$	10		20	
Gain-Bandwidth Product	$f_T$	$V_{CE}=10V, I_C=1.2A$		20		MHz
Storage Time	$t_{stg}$	$I_C=7A, I_{B1}=1.4A, I_{B2}=-2.8A, R_L=28.6\Omega, V_{CC}=200V$			3.0	$\mu s$
Fall Time	$t_f$	$I_C=7A, I_{B1}=1.4A, I_{B2}=-2.8A, R_L=28.6\Omega, V_{CC}=200V$			0.2	$\mu s$

## Switching Time Test Circuit



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