

**2SC5777**

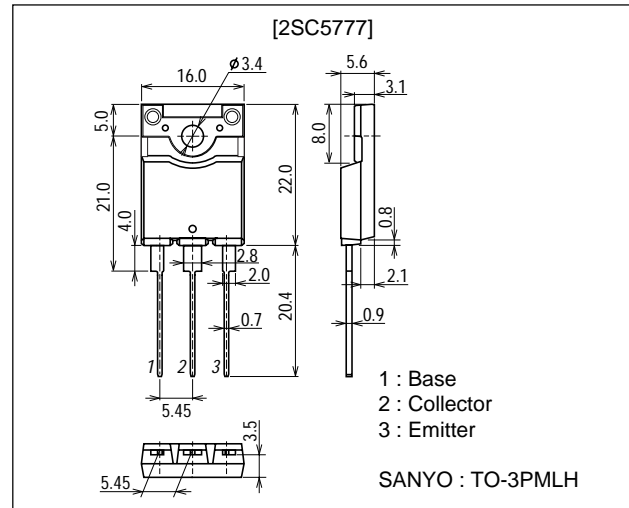
Ultrahigh-Definition CRT Display Horizontal Deflection Output Applications

Features

- High speed.
- High breakdown voltage ($V_{CB0}=1600V$).
- High reliability (Adoption of HVP process).
- Adoption of MBIT process.
- On-chip damper diode.

Package Dimensions

unit : mm
2174A



Specifications

Absolute Maximum Ratings at $T_a=25^\circ C$

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CB0}		1600	V
Collector-to-Emitter Voltage	V_{CEO}		800	V
Emitter-to-Base Voltage	V_{EBO}		5	V
Collector Current	I_C		10	A
Collector Current (Pulse)	I_{CP}		25	A
Collector Dissipation	P_C		3.0	W
		$T_c=25^\circ C$	80	W
Junction Temperature	T_J		150	$^\circ C$
Storage Temperature	T_{stg}		-55 to +150	$^\circ C$

Electrical Characteristics at $T_a=25^\circ C$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CB0}	$V_{CB}=800V, I_E=0$			10	μA
	I_{CES}	$V_{CE}=1600V, R_{BE}=0$			1.0	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=4V, I_C=0$	40		200	mA

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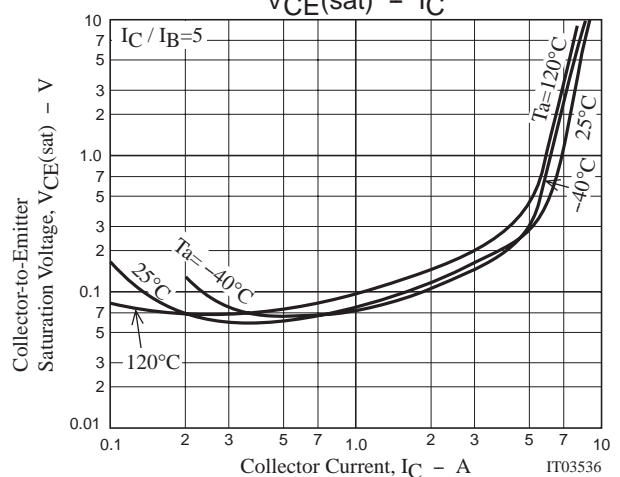
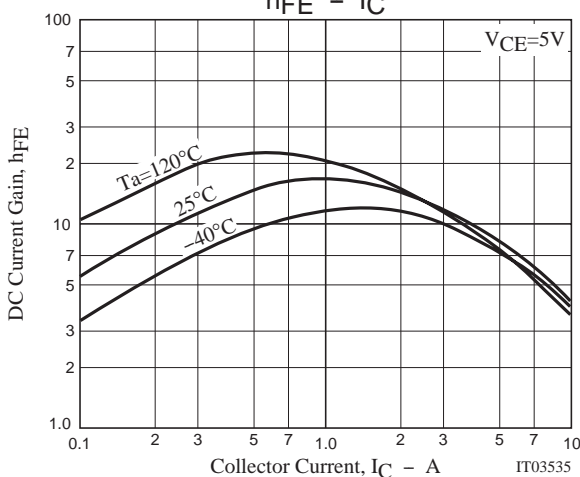
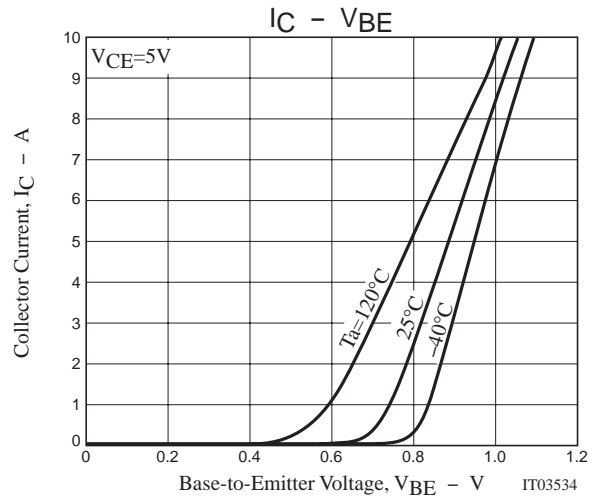
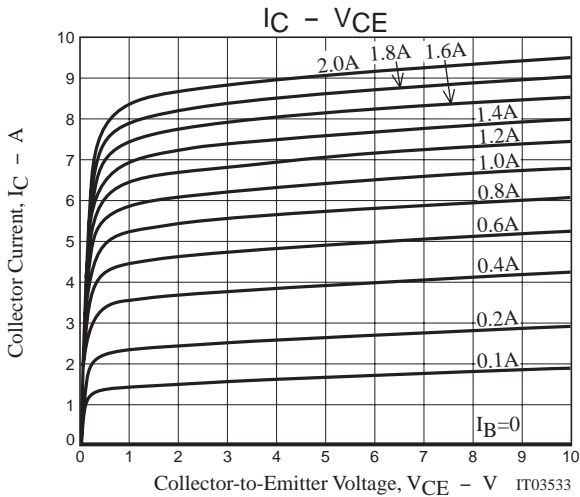
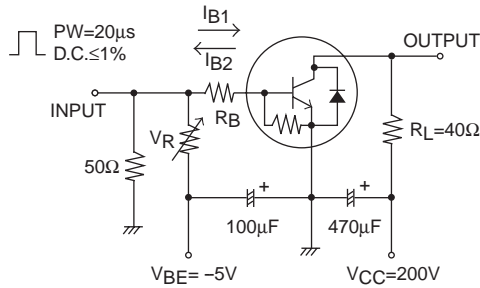
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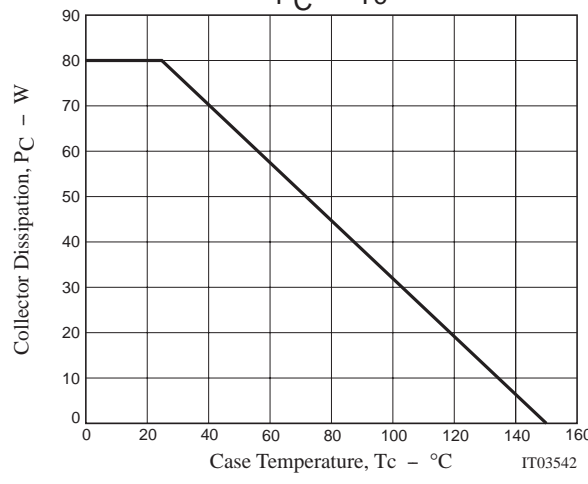
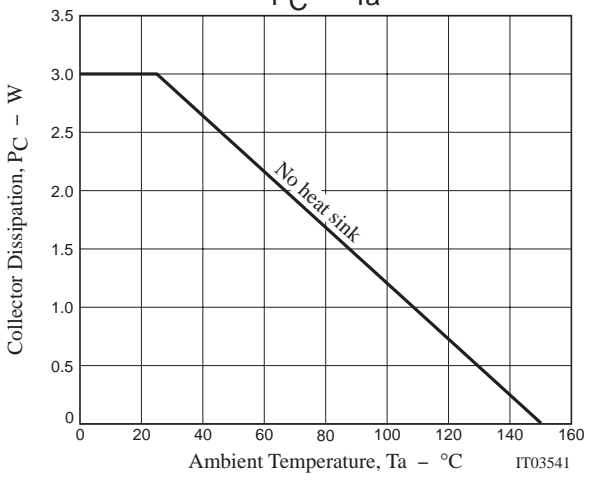
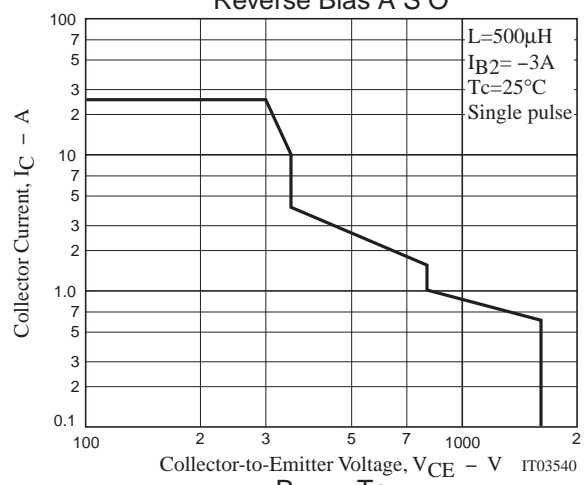
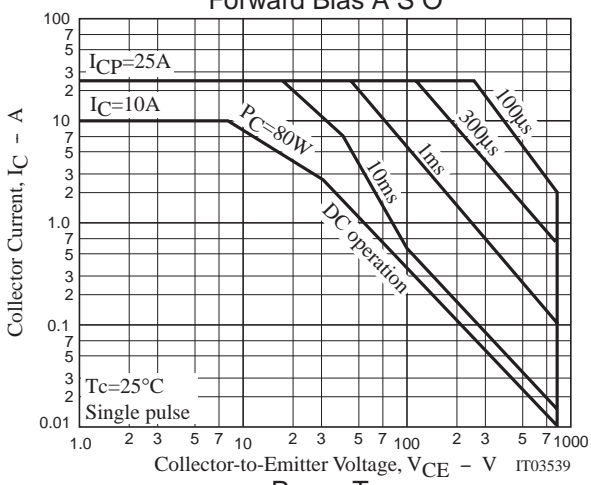
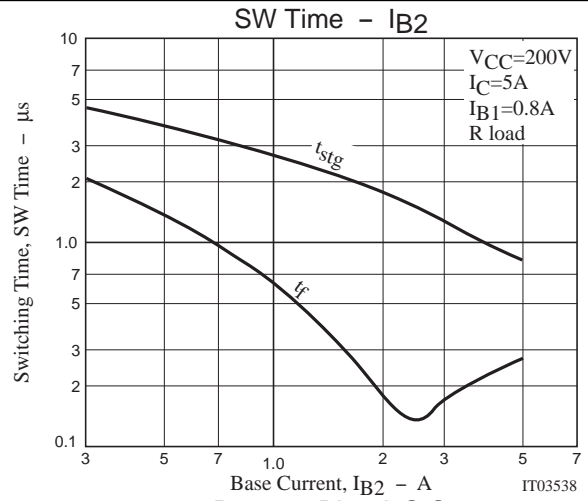
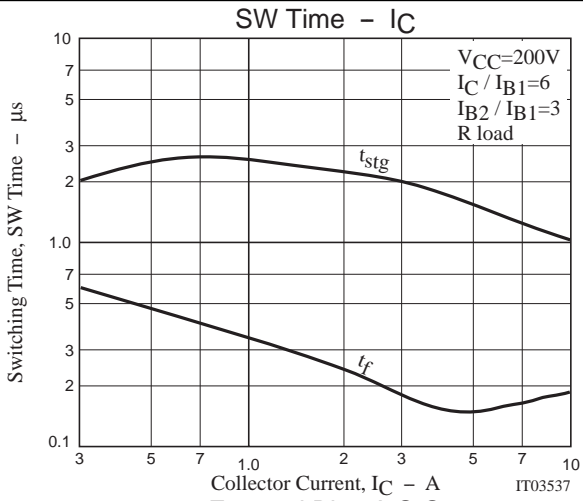
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
DC Current Gain	h_{FE1}	$V_{CE}=5V, I_C=1A$	8			
	h_{FE2}	$V_{CE}=5V, I_C=7A$	4		7	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=6.3A, I_B=1.6A$			3.0	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=6.3A, I_B=1.6A$			1.5	V
Storage Time	t_{stg}	$I_C=5A, I_{B1}=0.8A, I_{B2}=-2.5A$			3.0	μs
Fall Time	t_f	$I_C=5A, I_{B1}=0.8A, I_{B2}=-2.5A$			0.2	μs
Diode Forward Voltage	V_F	$I_{EC}=8A$			2.2	V

Switching Time Test Circuit





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