



HPA72R

Ultrahigh-Definition CRT Display Horizontal Deflection Output Applications

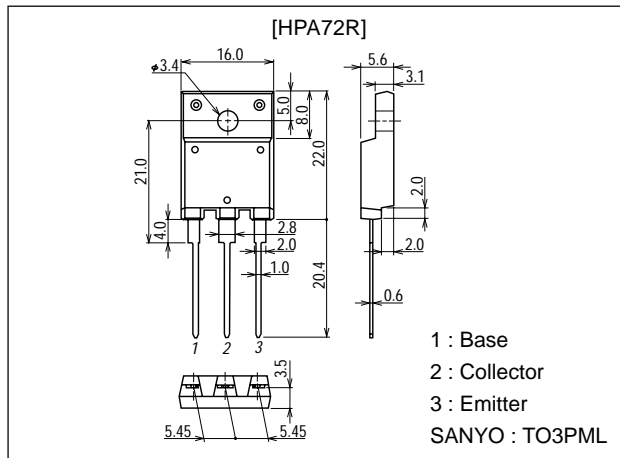
Features

- High speed.
- High breakdown voltage.
- High-speed damper diode placed in one package.
- Adoption of MBIT process.
- High reliability.
- Micaless package facilitating easy mounting.

Package Dimensions

unit:mm

2039D



Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		1500	V
Collector-to-Emitter Voltage	V_{CEO}		800	V
Emitter-to-Base Voltage	V_{EBO}		6	V
Collector Current	I_C		7	A
Collector Current (Pulse)	I_{CP}		16	A
Diode Forward Current	I_O		4	A
Diode Forward Current (Pulse)	I_{OP}	PW≤100μs, duty≤50%	7	A
Total Power Dissipation	P_T	Tc=25°C	60	W
		Ta=25°C	3	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		−55 to +150	°C

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

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=1500V, I_E=0$			5	mA
Collector Sustain Voltage	$V_{CEO(sus)}$	$I_C=100mA, I_B=0$	800			V
Emitter Cutoff Current	I_{EBO}	$V_{EB}=4V, I_C=0$			1.0	mA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=5V, I_C=1A$	8			
	$h_{FE(2)}$	$V_{CE}=5V, I_C=4A$	4*		10*	

* : The HPA72R is classified by 4A h_{FE} as follows :

4	2	6	5	3	8	7	4	10
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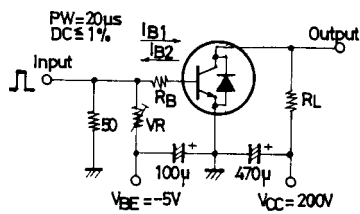
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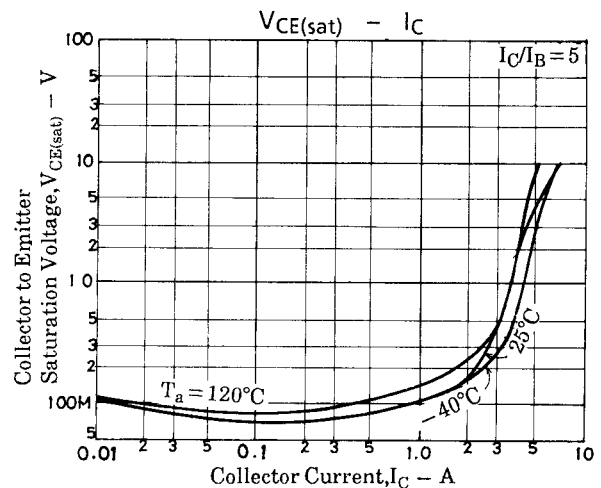
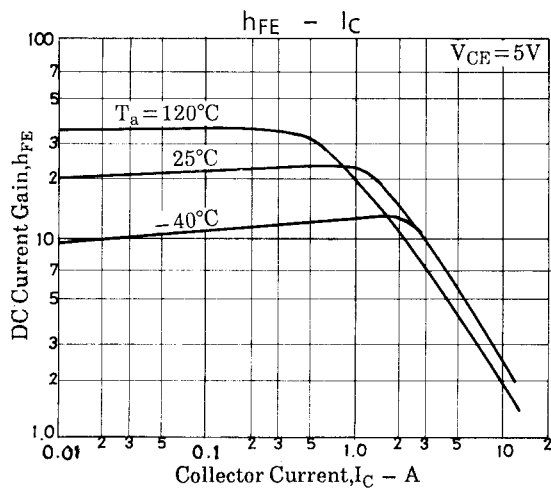
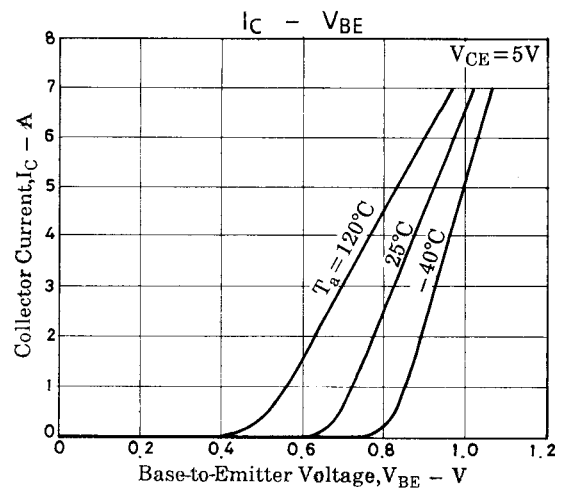
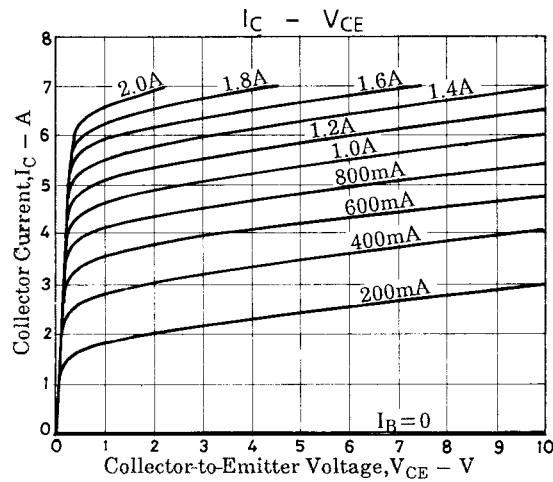
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=4A, I_B=1A$			5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=4A, I_B=1A$			1.5	V
Storage Time	t_{stg}	$I_C=4A, I_{B1}=0.8A, I_{B2}=-1.6A$			3	μs
Fall Time	t_f	$I_C=4A, I_{B1}=0.8A, I_{B2}=-1.6A$		0.1	0.2	μs
Diode Forward Voltage	$V_F(1)$	$I_F=4A$			3	V
	$V_F(2)$	$I_F=7A$			5	V
Diode Reverse Recovery Time	t_{rr}	$I_F=-I_R=100mA$			1	μs
Diode Forward Recovery Time	t_{fr}	$I_F=100mA$		0.1	0.2	μs

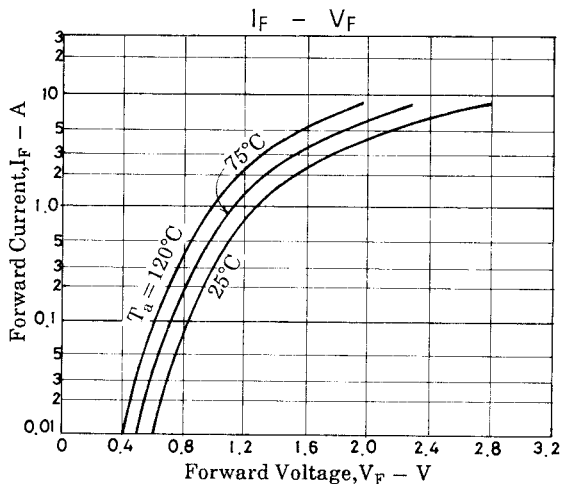
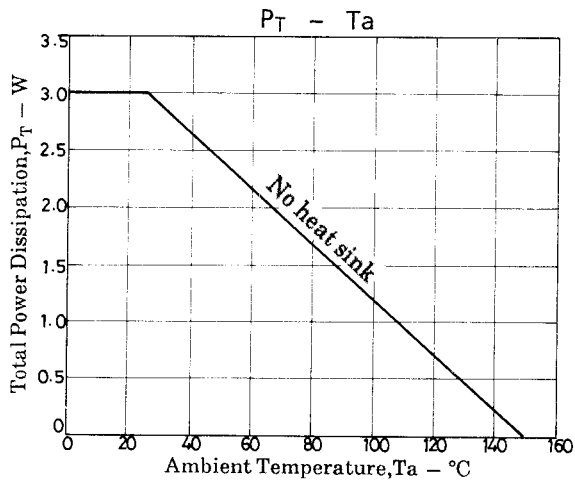
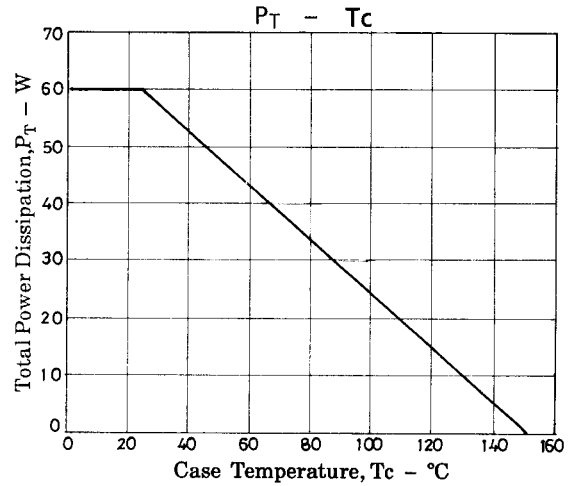
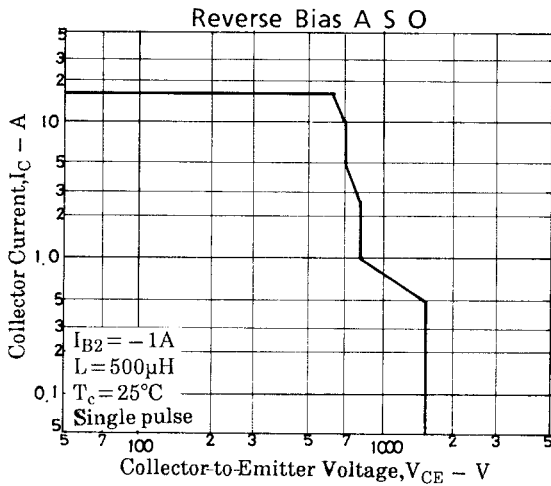
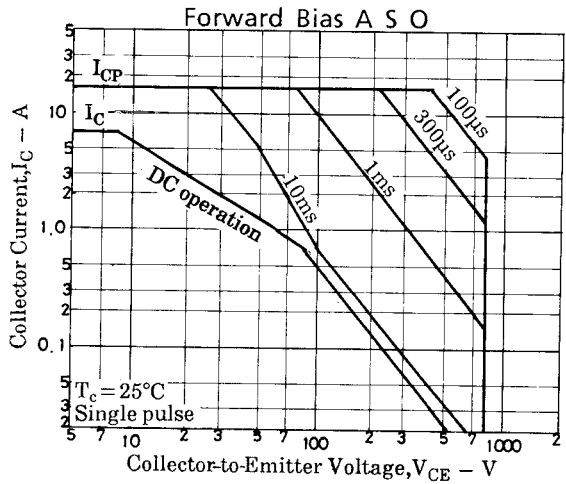
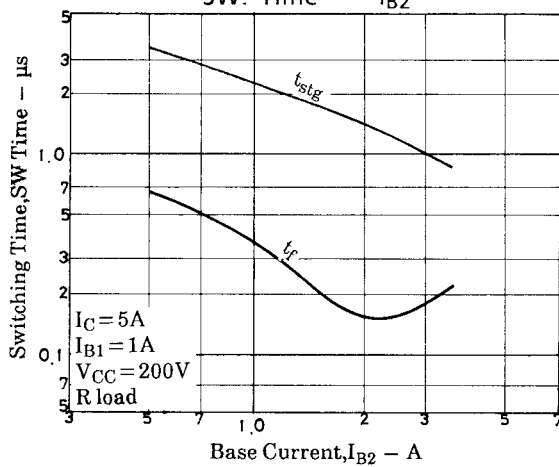
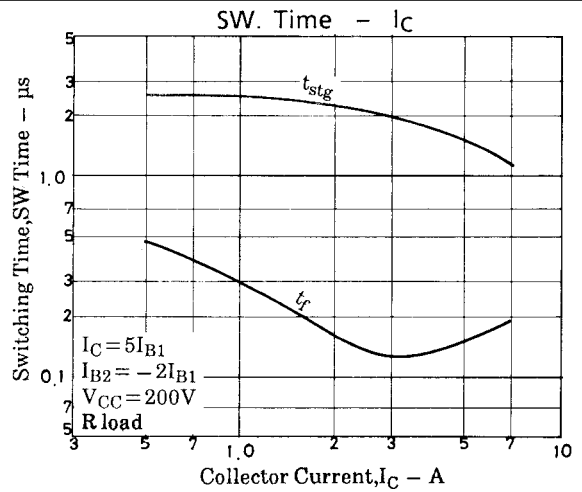
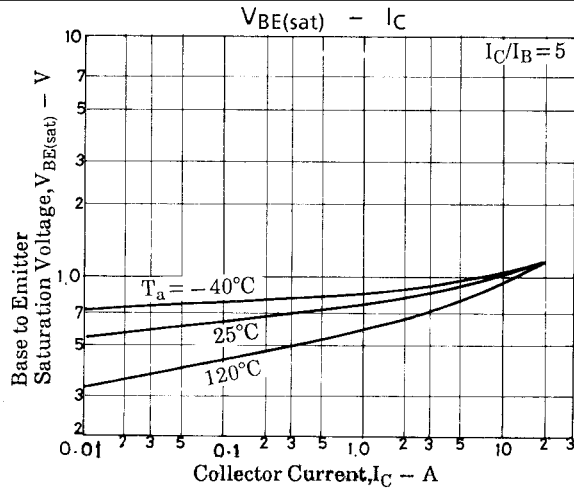
Switching Time Test Circuit



Unit (resistance:Ω, capacitance:F)



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