

<b>SANYO</b>	No.3271	<h1 style="margin: 0;">HPA72R</h1> <p style="margin: 0;">NPN Triple Diffused Planar Silicon Composite Transistor</p> <p style="margin: 0;">Very High-Definition Color Display, Horizontal Deflection Output Applications</p>
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**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

**Absolute Maximum Ratings at Ta = 25°C**

			unit
Collector-to-Base Voltage	V <sub>CB0</sub>	1500	V
Collector-to-Emitter Voltage	V <sub>CEO</sub>	800	V
Emitter-to-Base Voltage	V <sub>EBO</sub>	6	V
Collector Current	I <sub>C</sub>	7	A
Peak Collector Current	i <sub>cp</sub>	16	A
Diode Forward Current	I <sub>o</sub>	4	A
Peak Diode Forward Current	i <sub>op</sub>	PW ≤ 100μs, duty ≤ 50%	7 A
Total Power Dissipation	P <sub>T</sub>	T <sub>c</sub> = 25°C	60 W
		T <sub>a</sub> = 25°C	3 W
Junction Temperature	T <sub>j</sub>		150 °C
Storage Temperature	T <sub>stg</sub>		-55 to +150 °C

**Electrical Characteristics at Ta = 25°C**

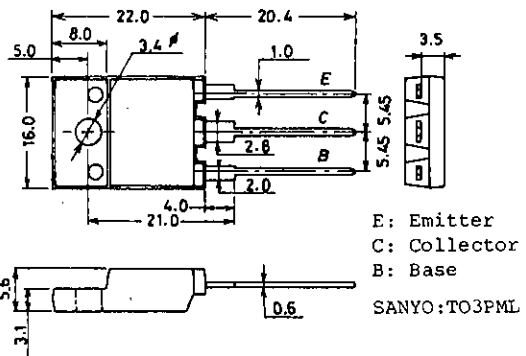
			min	typ	max	unit
Collector Cutoff Current	I <sub>CB0</sub>	V <sub>CB</sub> = 1500V, I <sub>E</sub> = 0			5	mA
Collector Sustain Voltage	V <sub>CEO(sus)</sub>	I <sub>C</sub> = 100mA, I <sub>B</sub> = 0	800			V
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> = 4V, I <sub>C</sub> = 0			1.0	mA
DC Current Gain	h <sub>FE</sub> (1)	V <sub>CE</sub> = 5V, I <sub>C</sub> = 1A	8			
	h <sub>FE</sub> (2)	V <sub>CE</sub> = 5V, I <sub>C</sub> = 4A	4※		10※	
C-E Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = 4A, I <sub>B</sub> = 1A			5	V
B-E Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = 4A, I <sub>B</sub> = 1A			1.5	V
Storage Time	t <sub>stg</sub>	I <sub>C</sub> = 4A, I <sub>B1</sub> = 0.8A, I <sub>B2</sub> = -1.6A			3	μs
Fall Time	t <sub>f</sub>	I <sub>C</sub> = 4A, I <sub>B1</sub> = 0.8A, I <sub>B2</sub> = -1.6A		0.1	0.2	μs

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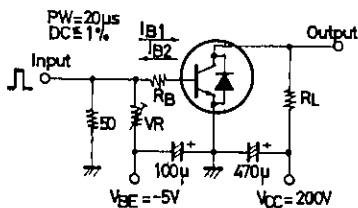
※: The HPA72R is classified by 4A h<sub>FE</sub> as follows:

4	2	6	5	3	8	7	4	10
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**Package Dimensions**  
(unit: mm) 2039



**Switching Time Test Circuit**

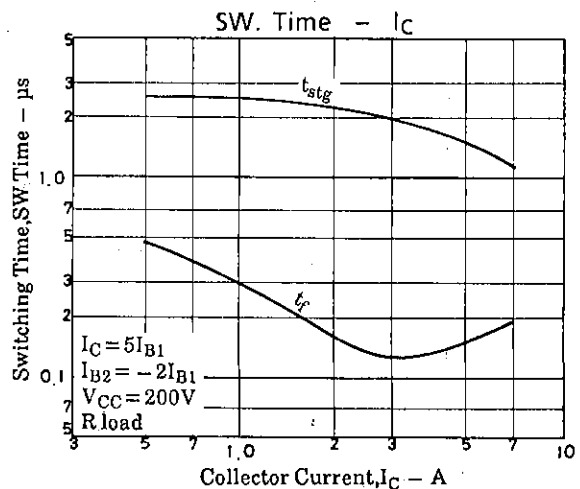
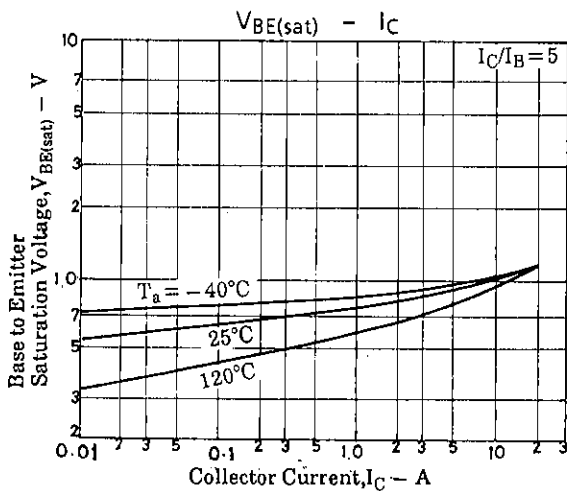
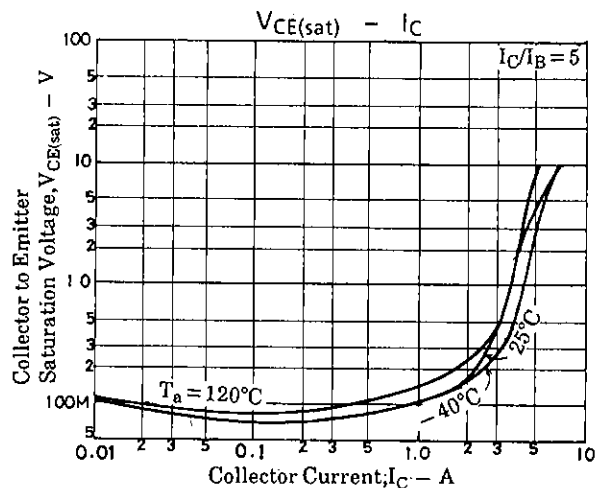
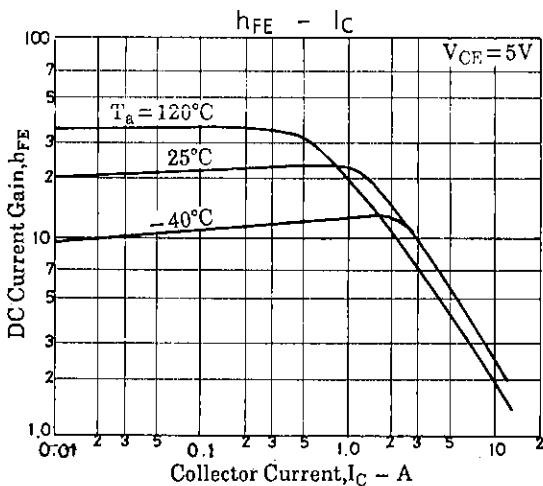
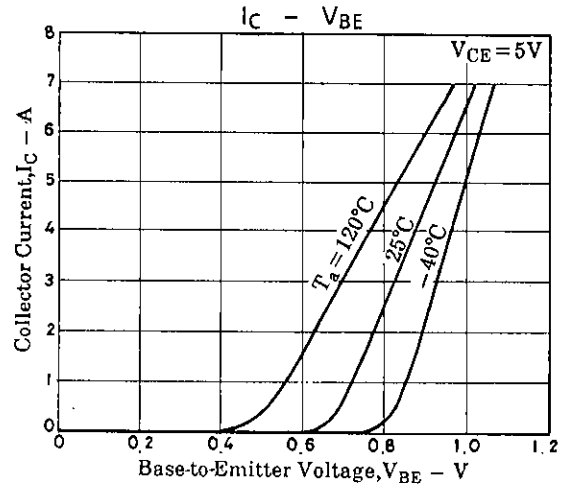
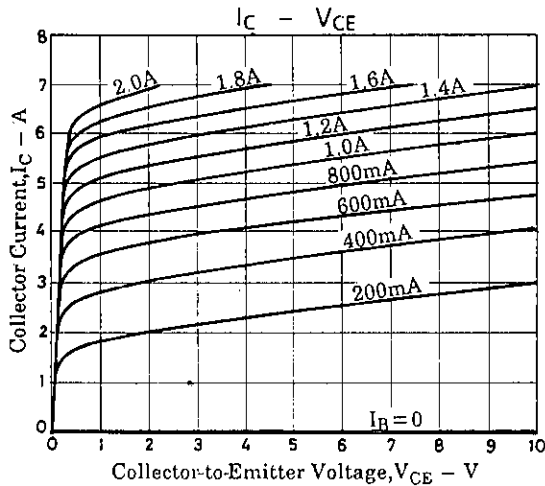


Unit (resistance:Ω, capacitance:F)

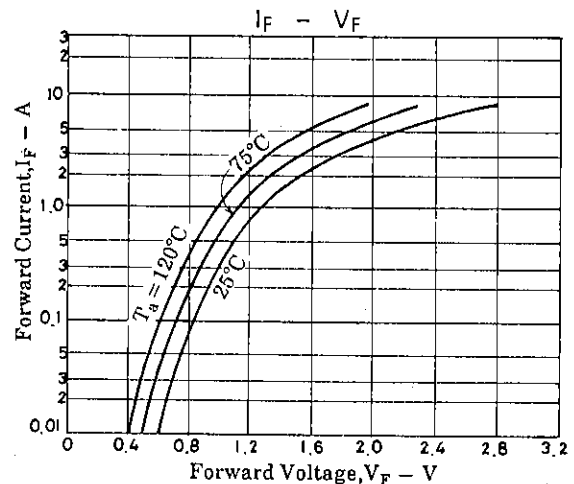
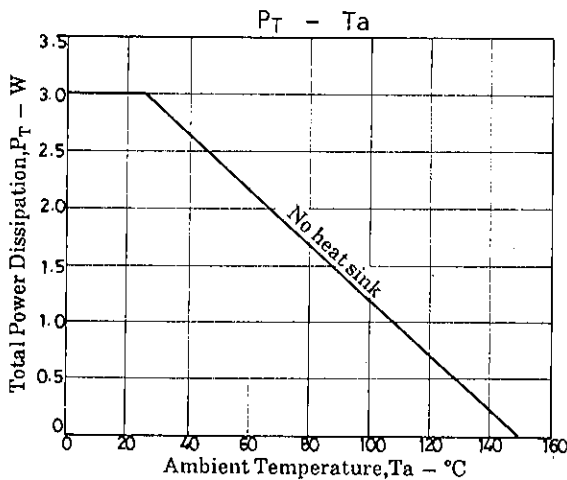
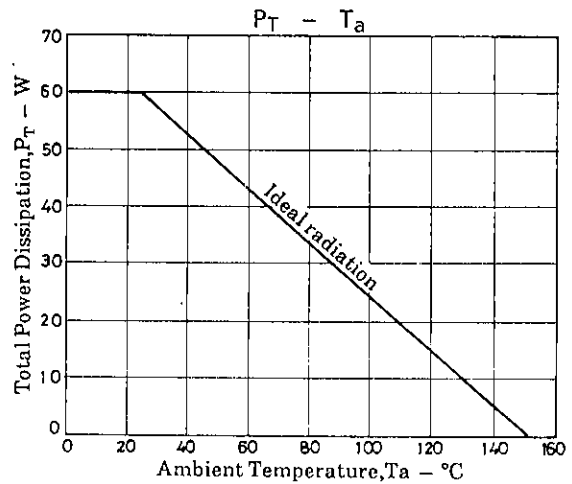
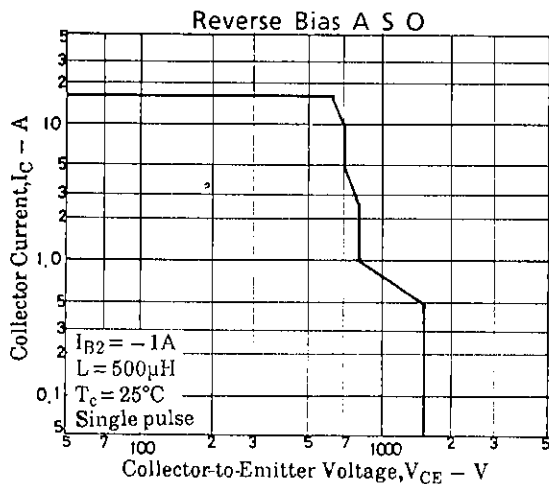
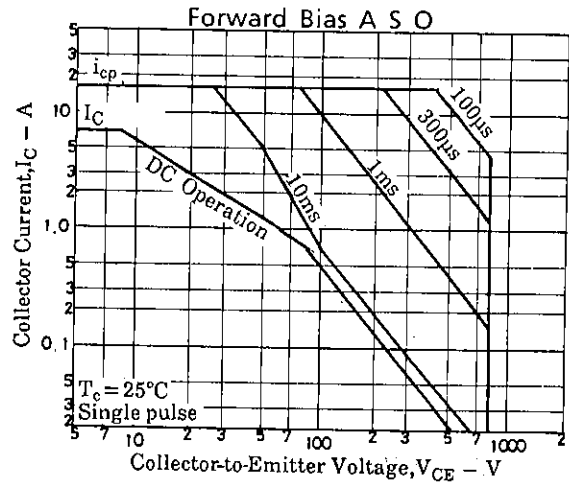
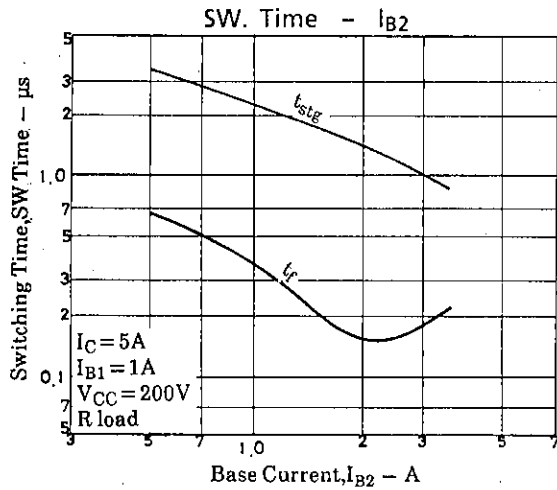
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			min	typ	max	unit
Diode Forward Voltage	$V_F(1)$	$I_F = 4A$			3	V
	$V_F(2)$	$I_F = 7A$			5	V
Diode Reverse Recovery Time	$t_{rr}$	$I_F = -I_R = 100mA$			1	$\mu s$
Diode Forward Recovery Time	$t_{fr}$	$I_F = 100mA$	0.1	0.2		$\mu s$



# HPA72R



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