

<b>SANYO</b>	No.2533	2SD1940
	NPN Epitaxial Planar Type Silicon Transistor	
HIGH-VOLTAGE SWITCHING, AF25 TO 30W OUTPUT APPLICATIONS		

**Features**

- . Micaless package facilitating mounting
- . Wide ASO

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

Collector-to-Base Voltage	V <sub>CB0</sub>	100	V
Collector-to-Emitter Voltage	V <sub>CE0</sub>	85	V
Emitter-to-Base Voltage	V <sub>EB0</sub>	6	V
Collector Current	I <sub>C</sub>	6	A
Peak Collector Current	i <sub>cp</sub>	10	A
Collector Dissipation	P <sub>C</sub>	25	W
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55 to +150	°C

Tc=25°C

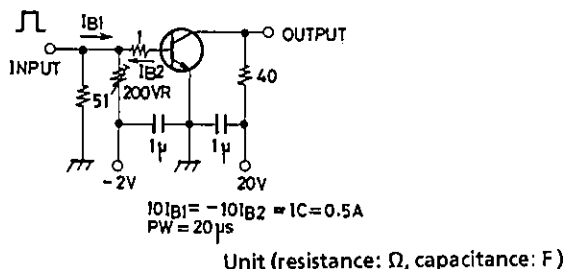
**Electrical Characteristics at Ta=25°C**

		min	typ	max	unit
Collector Cutoff Current	I <sub>CB0</sub> V <sub>CB</sub> =40V, I <sub>E</sub> =0			0.1	mA
Emitter Cutoff Current	I <sub>EB0</sub> V <sub>EB</sub> =4V, I <sub>C</sub> =0			0.1	mA
DC Current Gain	h <sub>FE</sub> (1) V <sub>CE</sub> =5V, I <sub>C</sub> =1A	60*		320*	
	h <sub>FE</sub> (2) V <sub>CE</sub> =5V, I <sub>C</sub> =3A	20			
Gain-Bandwidth Product	f <sub>T</sub> V <sub>CE</sub> =5V, I <sub>C</sub> =1A		15		MHz
C-E Saturation Voltage	V <sub>CE(sat)</sub> I <sub>C</sub> =4A, I <sub>B</sub> =0.4A			2.0	V
Base to Emitter Voltage	V <sub>BE</sub> V <sub>CE</sub> =5V, I <sub>C</sub> =1A			1.5	V
Output Capacitance	c <sub>ob</sub> V <sub>CB</sub> =10V, f=1MHz		110		pF
C-B Breakdown Voltage	V(BR)CBO I <sub>C</sub> =5mA, I <sub>E</sub> =0	100			V
C-E Breakdown Voltage	V(BR)CEO I <sub>C</sub> =5mA, R <sub>BE</sub> =∞	85			V
E-B Breakdown Voltage	V(BR)EBO I <sub>E</sub> =5mA, I <sub>C</sub> =0	6			V
Turn-on Time	t <sub>on</sub> See specified Test Circuit.		0.28		μs
Fall Time	t <sub>f</sub> "		0.50		μs
Storage Time	t <sub>stg</sub> "		3.60		μs

\*: The 2SD1940 is classified by 1A h<sub>FE</sub> as follows:

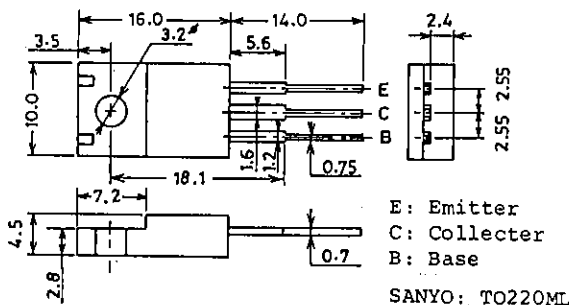
60 D 120	100 E 200	160 F 320
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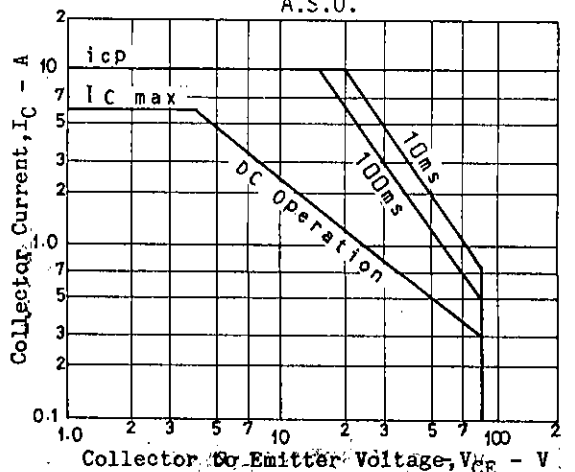
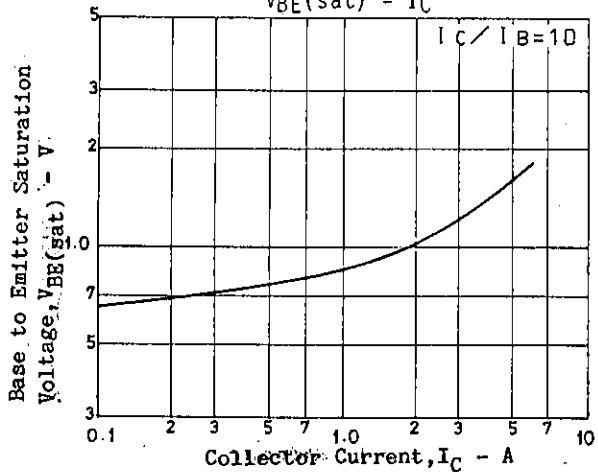
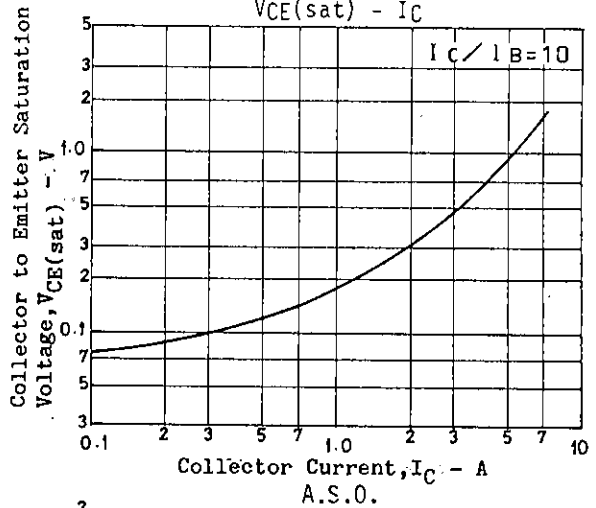
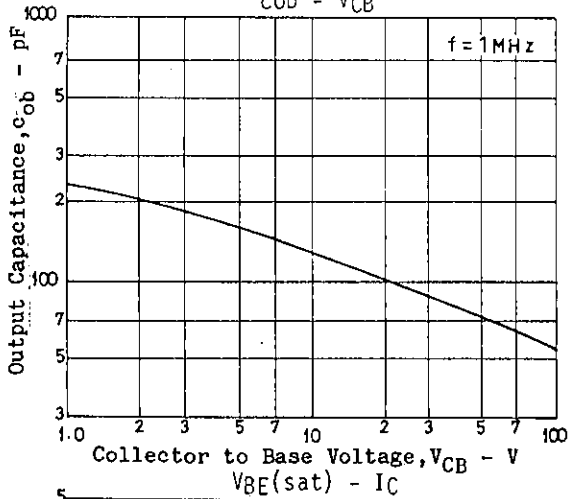
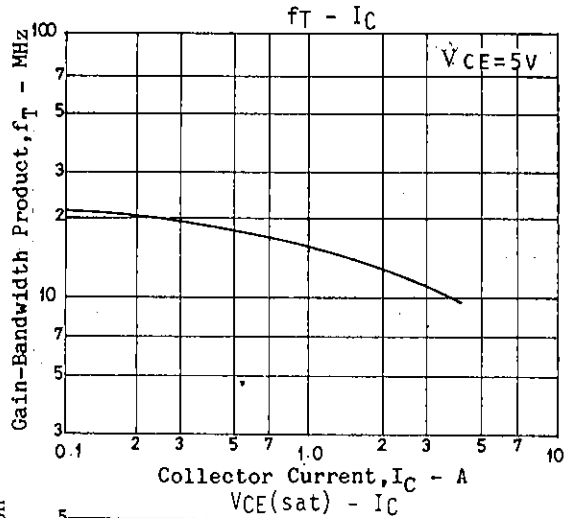
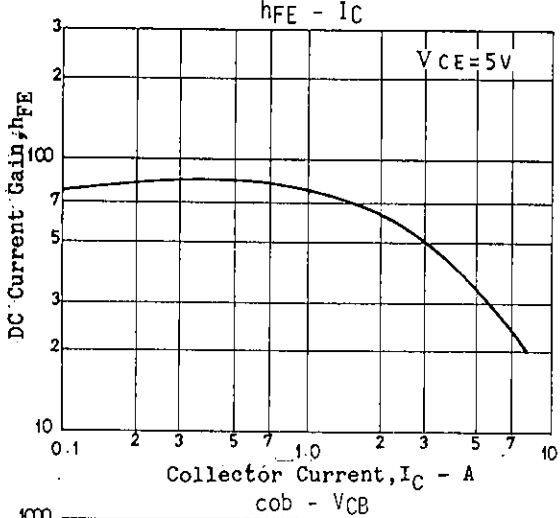
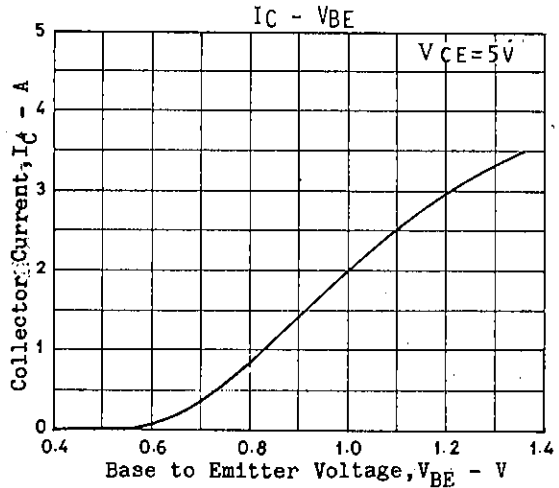
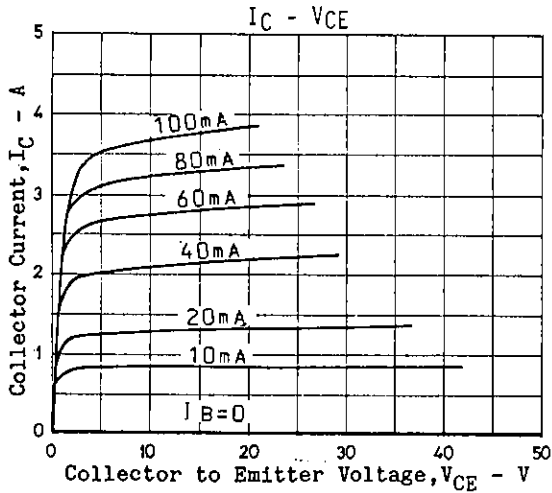
**Switching Time Test Circuit**

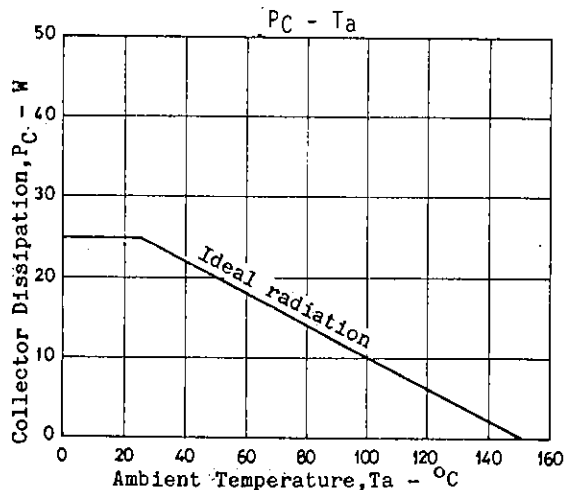


**Package Dimensions 2041**

(unit:mm)







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