

<b>SANYO</b>	No.3233	<b>2SA1689</b>
		PNP Epitaxial Planar Silicon Transistor TV Camera Deflection, High-Voltage Driver Applications

**Features**

- High breakdown voltage
- Small reverse transfer capacitance and excellent high frequency characteristic
- Excellent DC current gain
- Adoption of FBET process

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

			unit
Collector to Base Voltage	V <sub>CB0</sub>	-300	V
Collector to Emitter Voltage	V <sub>CEO</sub>	-300	V
Emitter to Base Voltage	V <sub>EBO</sub>	-5	V
Collector Current	I <sub>C</sub>	-50	mA
Collector Current(Pulse)	I <sub>CP</sub>	-100	mA
Collector Dissipation	P <sub>C</sub>	600	mW
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55 to +150	°C

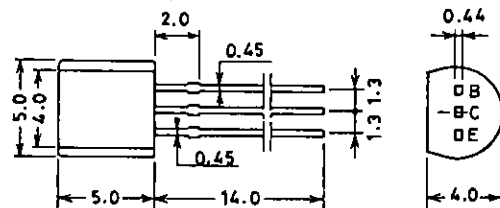
**Electrical Characteristics at Ta = 25°C**

			min	typ	max	unit
Collector Cutoff Current	I <sub>CBO</sub>	V <sub>CB</sub> = -200V, I <sub>E</sub> = 0			-0.1	μA
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> = -4V, I <sub>C</sub> = 0			-0.1	μA
DC Current Gain	h <sub>FE</sub> (1)	V <sub>CE</sub> = -6V, I <sub>C</sub> = -0.1mA	100		320	
	h <sub>FE</sub> (2)	V <sub>CE</sub> = -6V, I <sub>C</sub> = -1mA	100			
Gain-Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> = -30V, I <sub>C</sub> = -10mA		70		MHz
C-E Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = -10mA, I <sub>B</sub> = -1mA			-1.0	V
B-E Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = -10mA, I <sub>B</sub> = -1mA			-1.0	V
C-B Breakdown Voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = -10μA, I <sub>E</sub> = 0	-300			V
C-E Breakdown Voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = -1mA, R <sub>BE</sub> = ∞	-300			V
E-B Breakdown Voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = -10μA, I <sub>C</sub> = 0	-5			V
Output Capacitance	c <sub>ob</sub>	V <sub>CB</sub> = -30V, f = 1MHz		2.4		pF
Reverse Transfer Capacitance	c <sub>re</sub>	V <sub>CB</sub> = -30V, f = 1MHz		1.5		pF
DC Current Gain Ratio	h <sub>FE</sub> ratio	h <sub>FE</sub> (1)/h <sub>FE</sub> (2)		1.0		

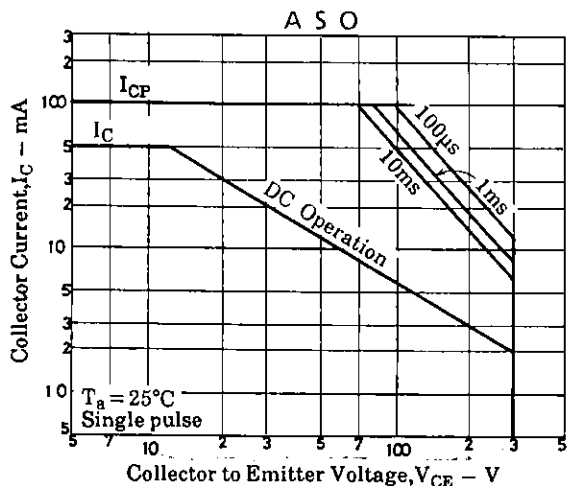
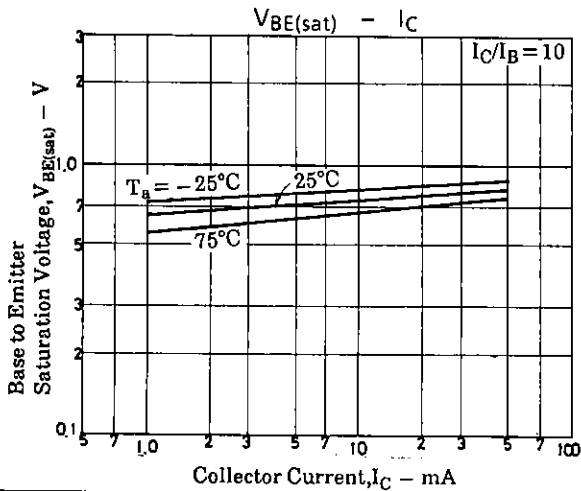
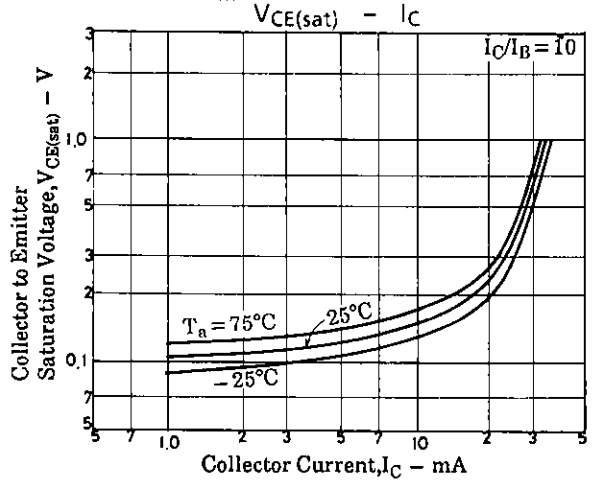
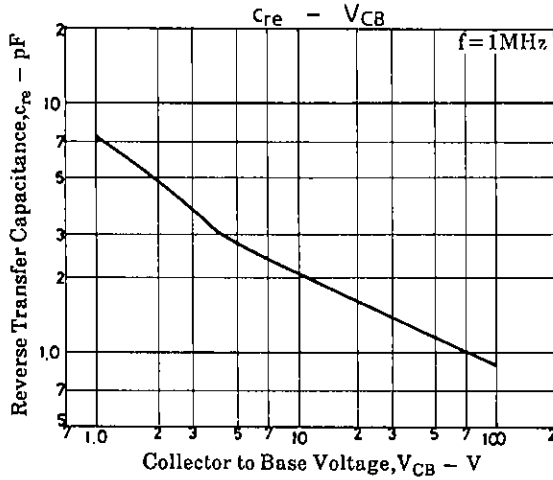
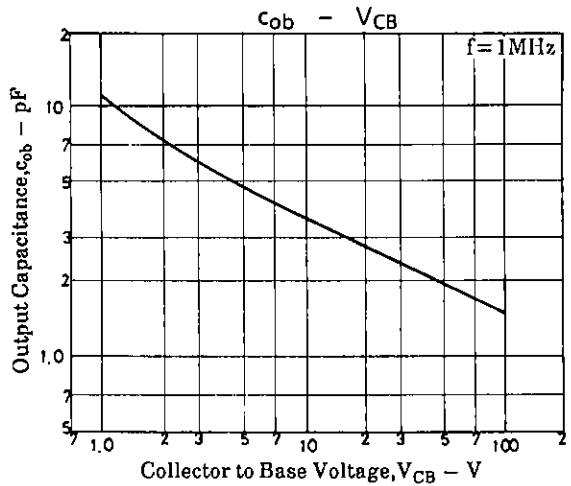
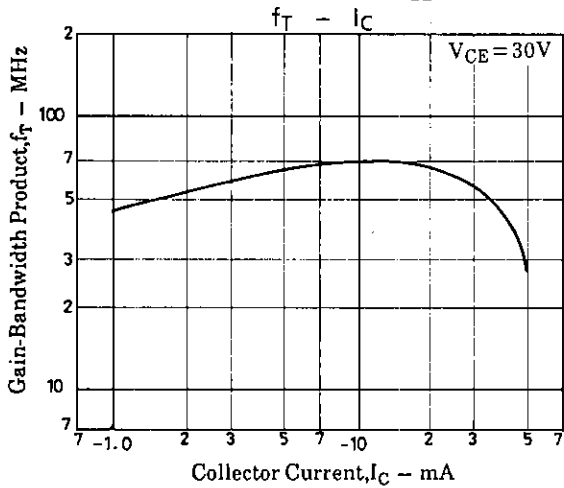
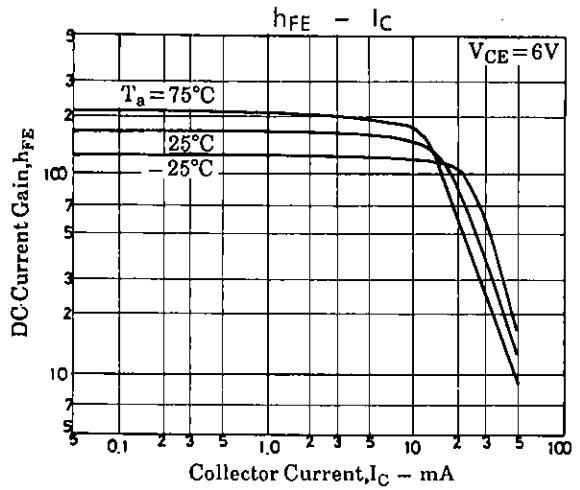
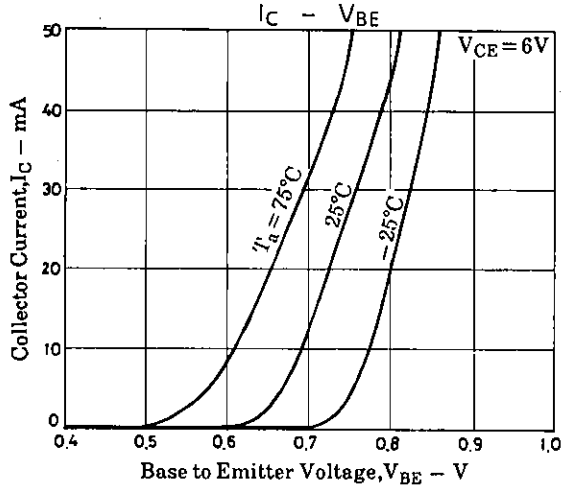
※ : The 2SA1689 is classified by 0.1mA h<sub>FE</sub> as follows :

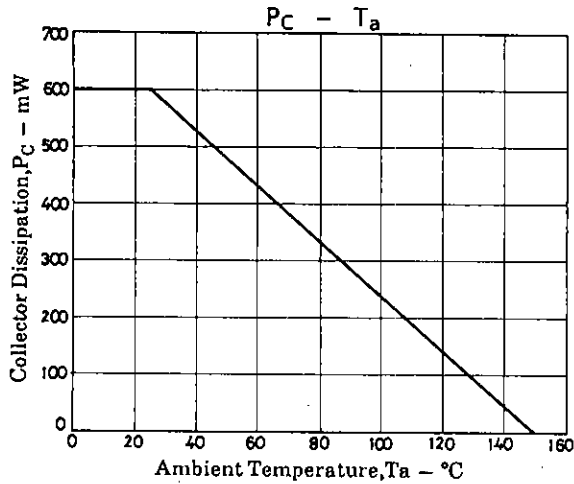
100 E 200	160 F 320
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**Package Dimensions 2003A**  
(unit: mm)



JEDEC: TO-92      B: Base  
 EIAJ : SC-43      C: Collector  
 SANYO: NP        E: Emitter





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