



No.3233

2SA1689

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 _{CB0}	-300	V
Collector to Emitter Voltage	V _{CEO}	-300	V
Emitter to Base Voltage	V _{EBO}	-5	V
Collector Current	I _C	-50	mA
Collector Current(Pulse)	I _{CP}	-100	mA
Collector Dissipation	P _C	600	mW
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 to +150	°C

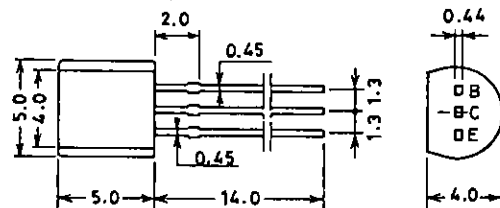
Electrical Characteristics at Ta = 25°C

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

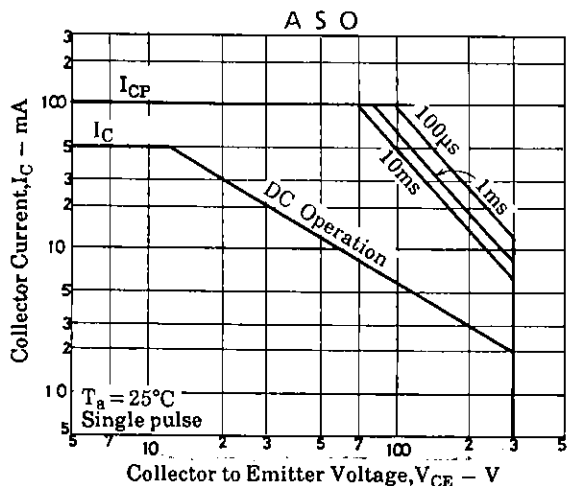
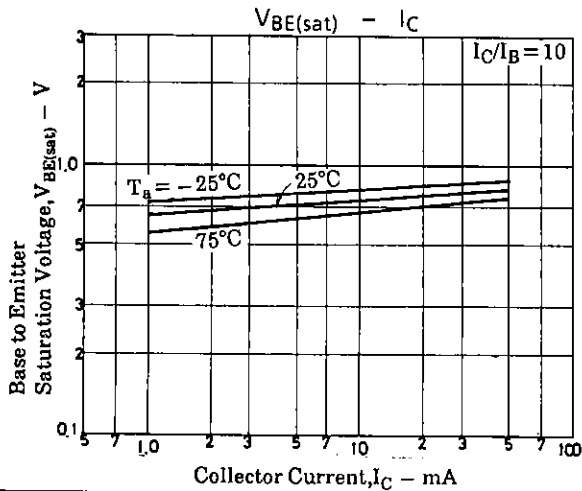
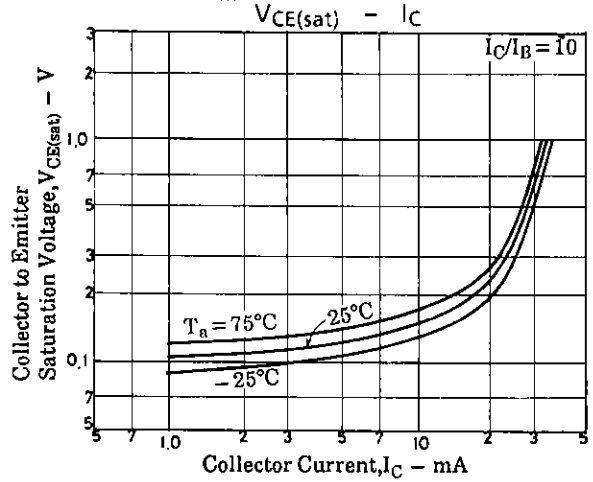
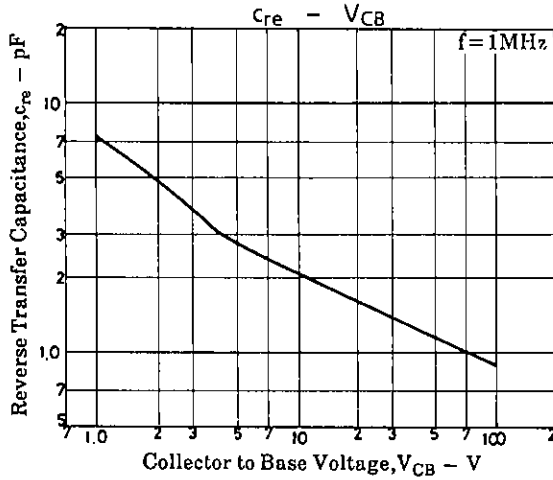
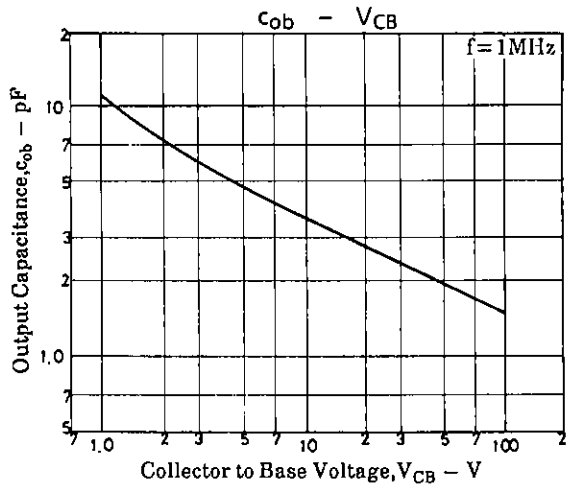
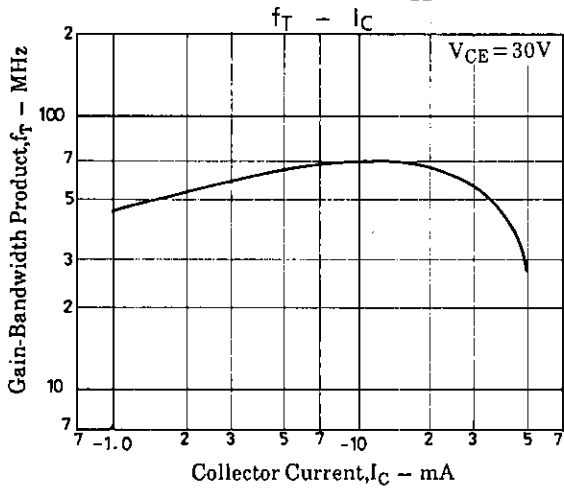
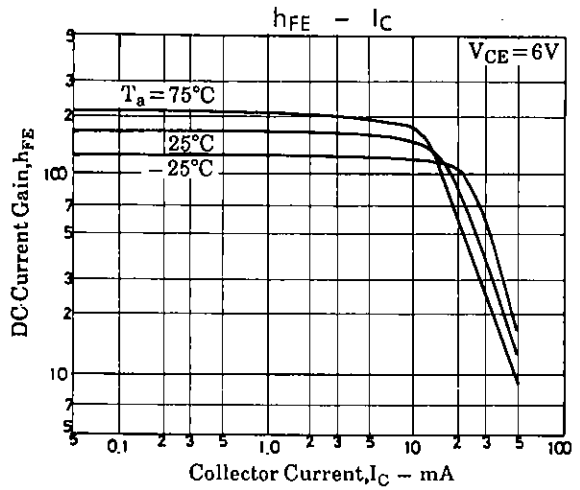
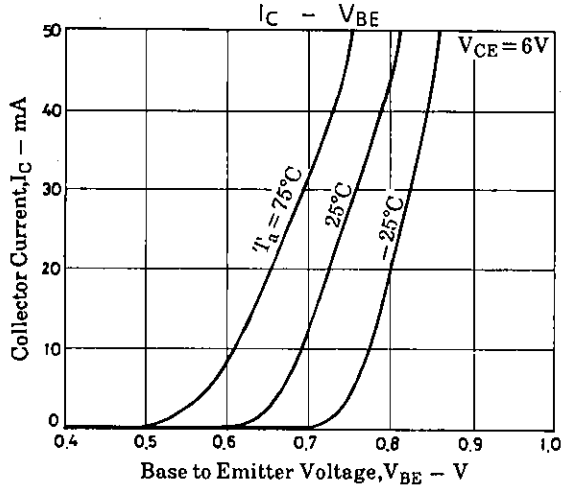
※ : The 2SA1689 is classified by 0.1mA h_{FE} as follows :

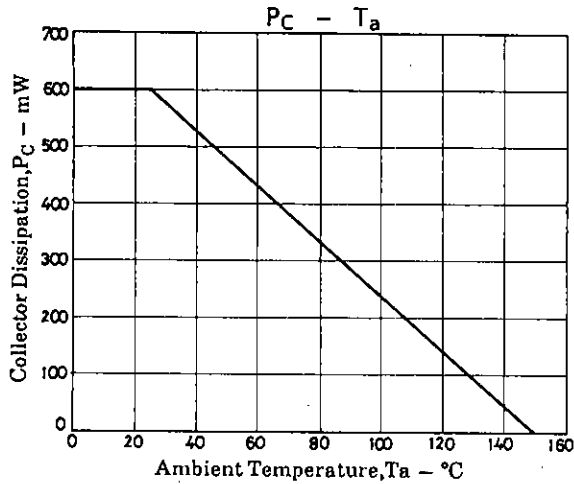
100 E 200	160 F 320
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Package Dimensions 2003A
(unit: mm)



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





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