

	No.3011	2SA1682
	PNP Epitaxial Planar Silicon Transistor TV Camera Deflection, High-Voltage Driver Applications	

Features

- High breakdown voltage ($V_{CEO} \geq 300V$)
- Small reverse transfer capacitance and excellent high frequency characteristic (c_{re} : 1.5pF typ)
- Excellent DC current gain ratio (h_{FE} ratio: 1.0 typ)
- Adoption of FBET process

Absolute Maximum Ratings at $T_a = 25^\circ C$

			unit
Collector to Base Voltage	V_{CBO}	-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	250	mW
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature	T_{stg}	-55 to +150	$^\circ C$

Electrical Characteristics at $T_a = 25^\circ C$

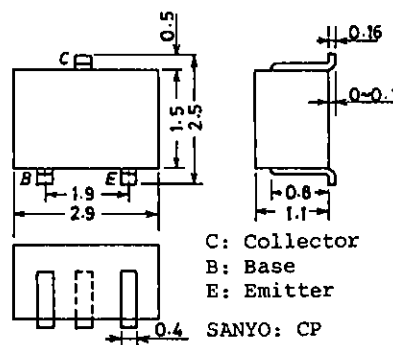
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = -200V, I_E = 0$			-0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = -4V, I_C = 0$			-0.1	μA
DC Current Gain	$h_{FE}(1)$	$V_{CE} = -6V, I_C = -0.1mA$	100※		320※	
	$h_{FE}(2)$	$V_{CE} = -6V, I_C = -1mA$	100			
Gain-Bandwidth Product	f_T	$V_{CE} = -30V, I_C = -10mA$		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	$V_{(BR)CBO}$	$I_C = -10\mu A, I_E = 0$	-300			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1mA, R_{BE} = \infty$	-300			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = \infty$	-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		

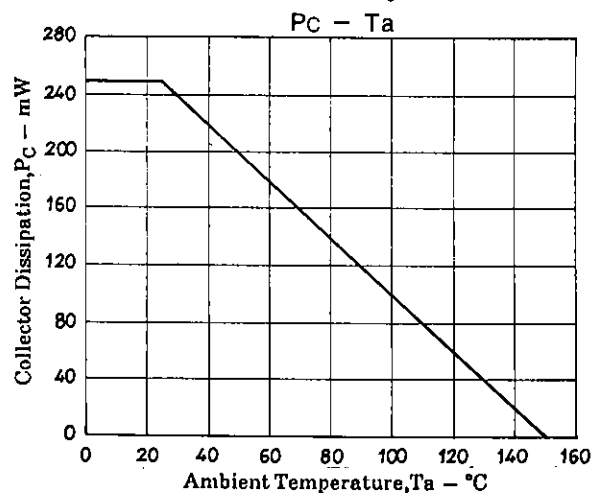
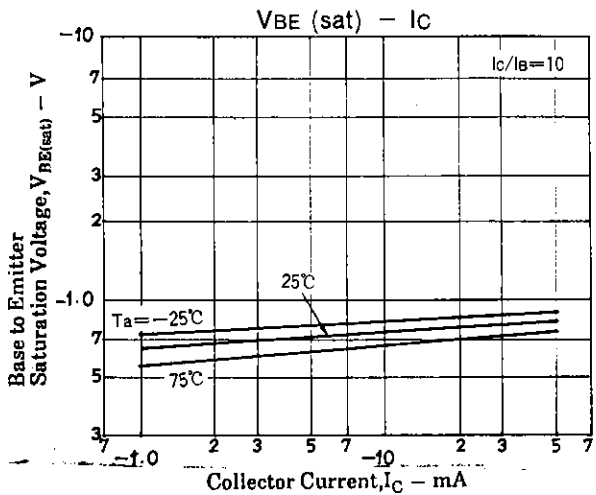
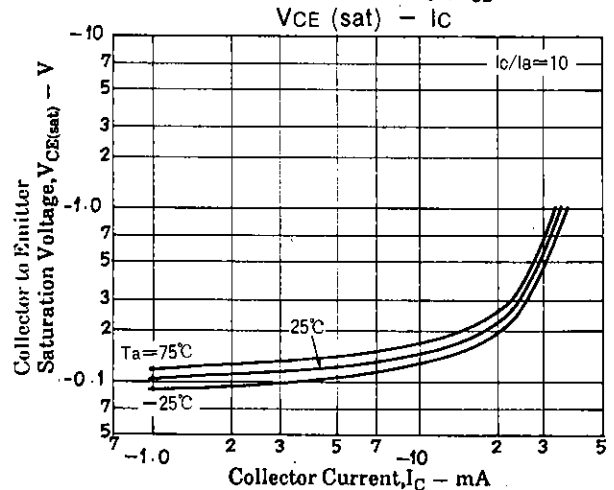
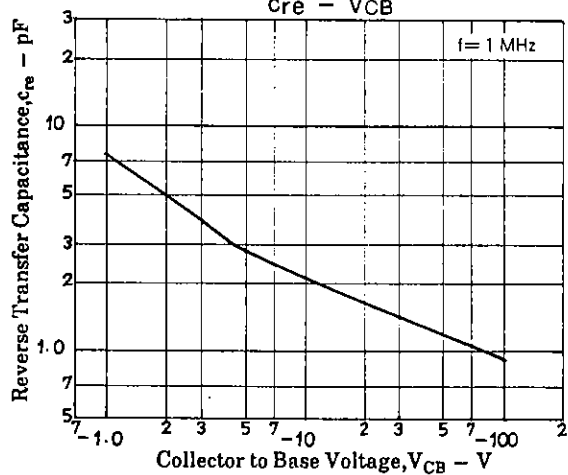
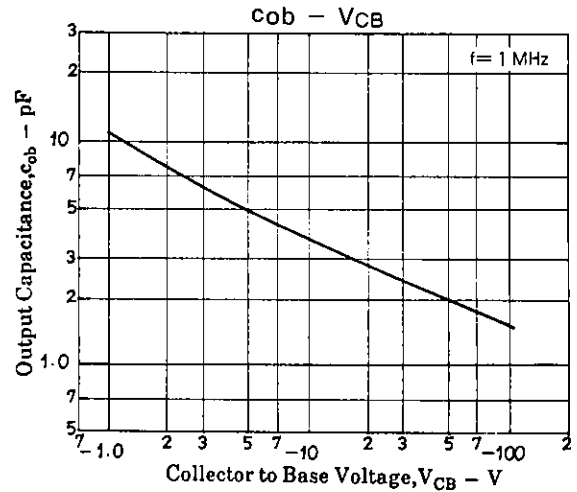
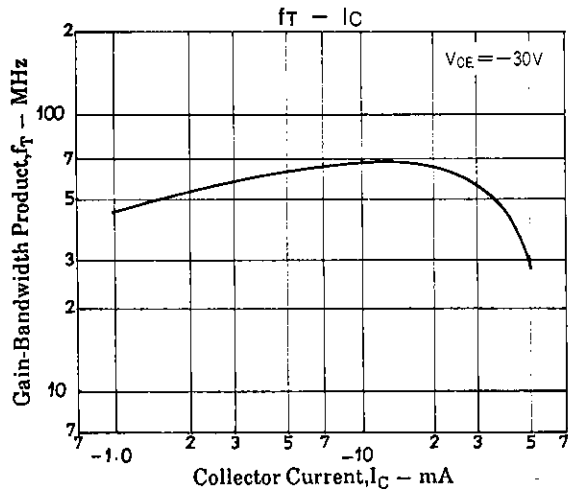
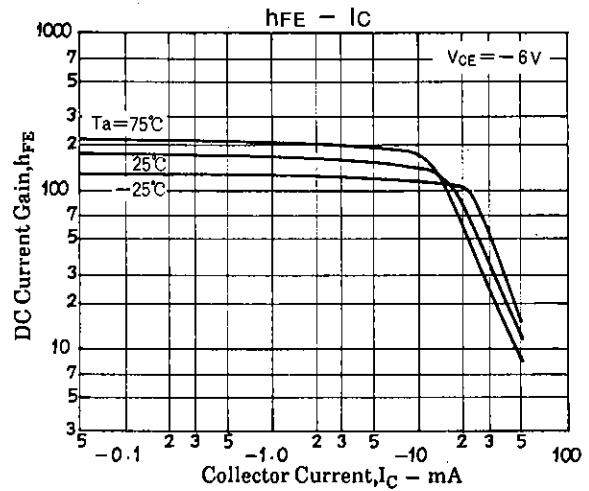
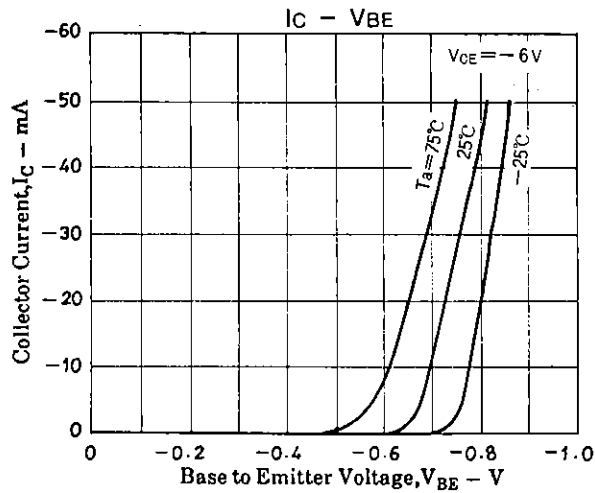
※: The 2SA1682 is classified by 0.1mA h_{FE} as follows:

100	4	200	160	5	320
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(Note) Marking : CS
 h_{FE} rank : 4,5

Package Dimensions 2018A (unit : mm)





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