

SANYO

No.3019

2SC4412

NPN Triple Diffused 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} : 1.0pF typ)
- Excellent DC current gain ratio (h_{FE} ratio: 0.95 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	$^\circ C$

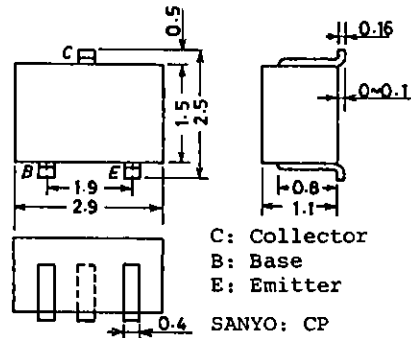
Electrical Characteristics at $T_a = 25^\circ C$

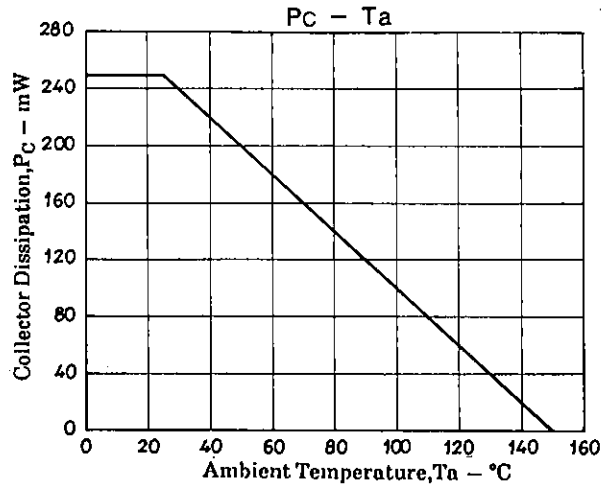
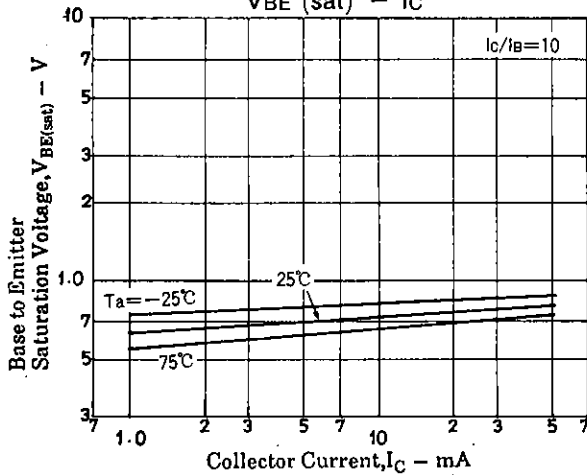
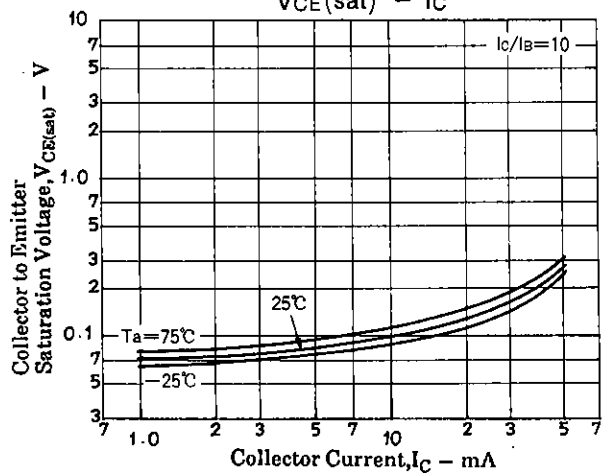
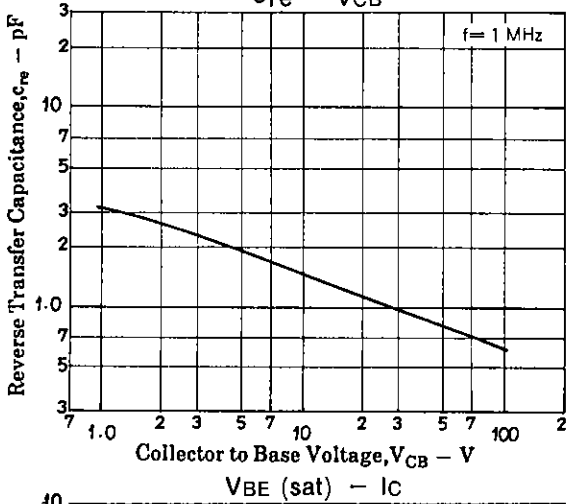
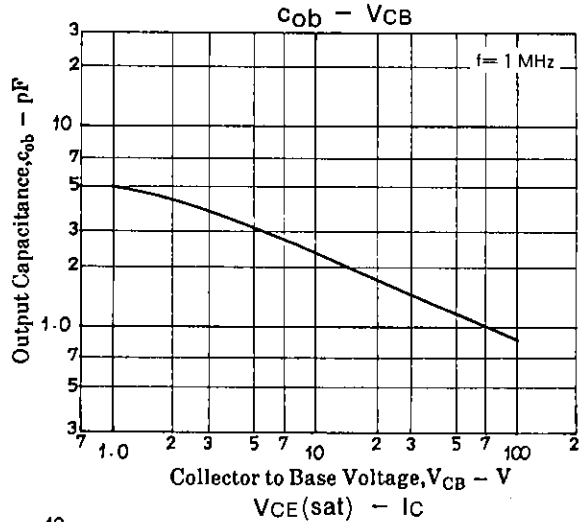
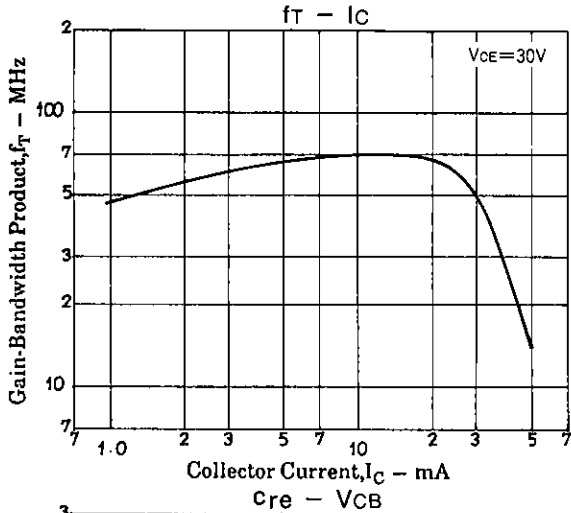
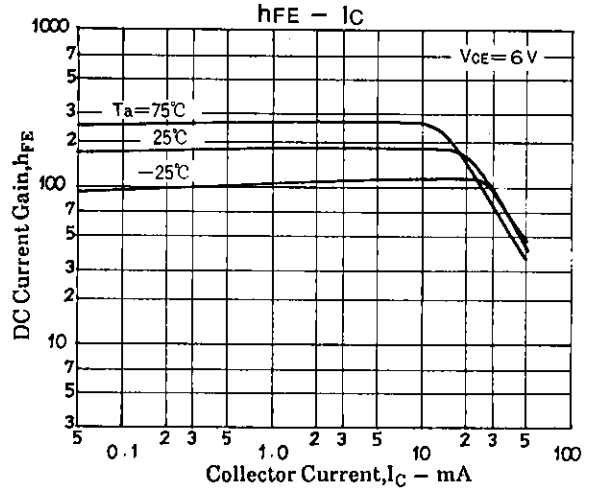
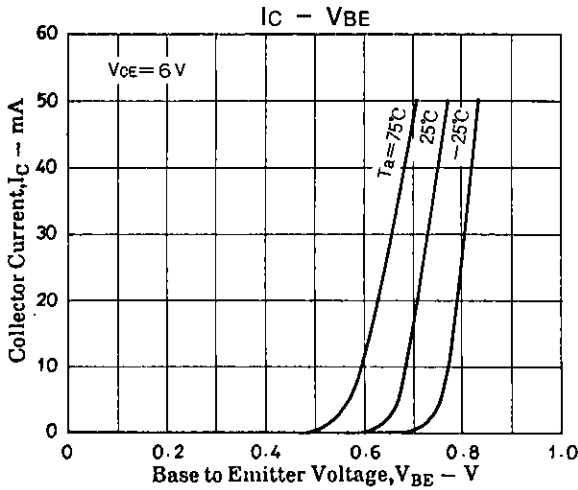
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 200V, I_E = 0$			0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 4V, I_C = 0$			0.1	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE} = 6V, I_C = 0.1mA$	100*		320*	
	$h_{FE(2)}$	$V_{CE} = 6V, I_C = 1mA$	100			
Gain-Bandwidth Product	f_T	$V_{CE} = 30V, I_C = 10mA$		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}	$V_{CB} = 30V, f = 1MHz$		1.5		pF
Reverse Transfer Capacitance	c_{re}	$V_{CB} = 30V, f = 1MHz$		1.0		pF
DC Current Gain Ratio	h_{FE} ratio	$h_{FE(1)}/h_{FE(2)}$		0.95		

* : The 2SC4412 is classified by 0.1mA h_{FE} as follows :

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

Package Dimensions 2018A
(unit : mm)



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