

**2SC4412**

TV Camera Deflection, High-Voltage Driver Applications

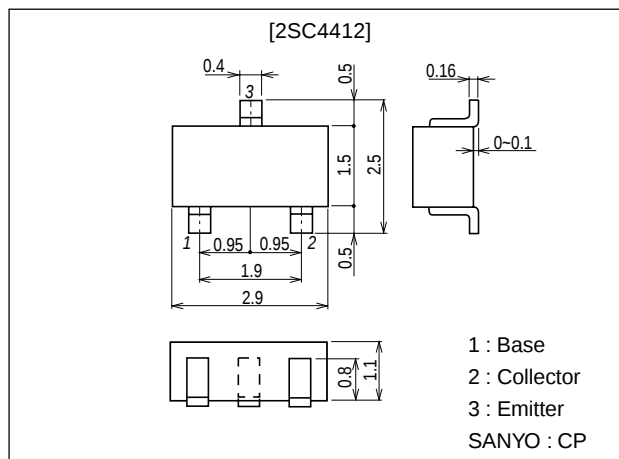
Features

- 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.

Package Dimensions

unit:mm

2018B



Specifications

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

Parameter	Symbol	Conditions	Ratings	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 $T_a = 25^\circ C$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
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_{FE1}	$V_{CE}=6V, I_C=0.1mA$	100*		320*	
	h_{FE2}	$V_{CE}=6V, I_C=1mA$	100			
Gain-Bandwidth Product	f_T	$V_{CE}=30V, I_C=10mA$		70		MHz

* : 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

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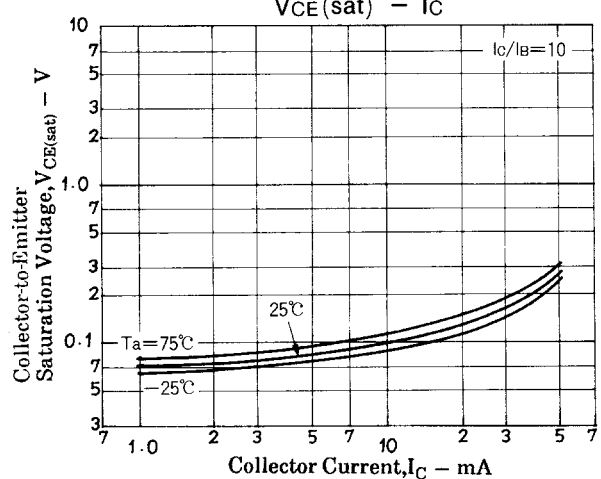
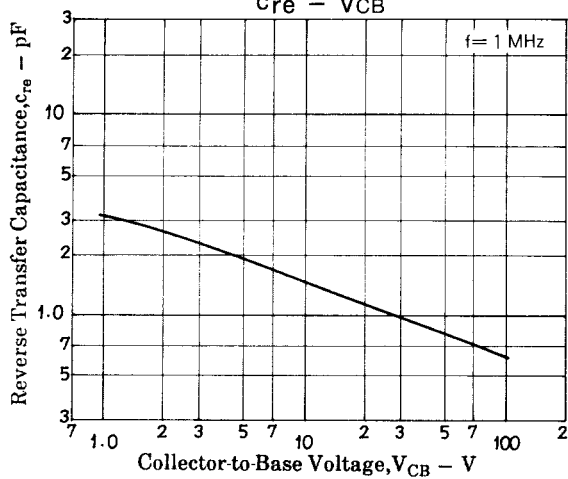
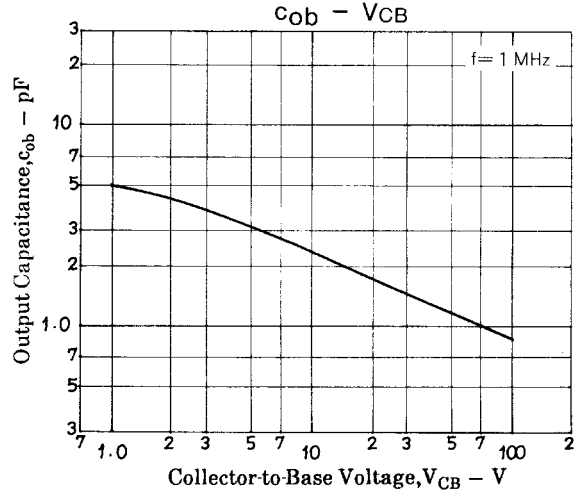
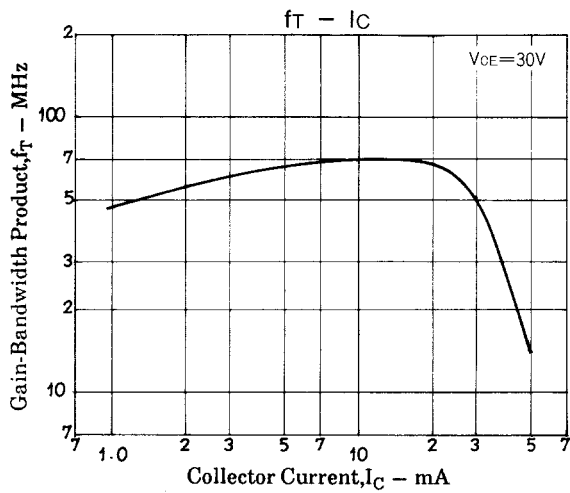
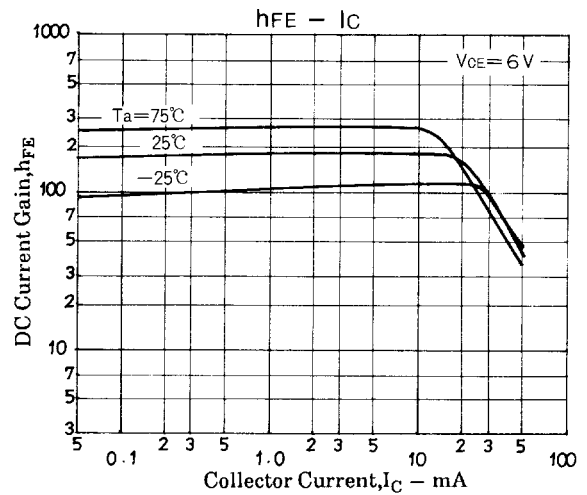
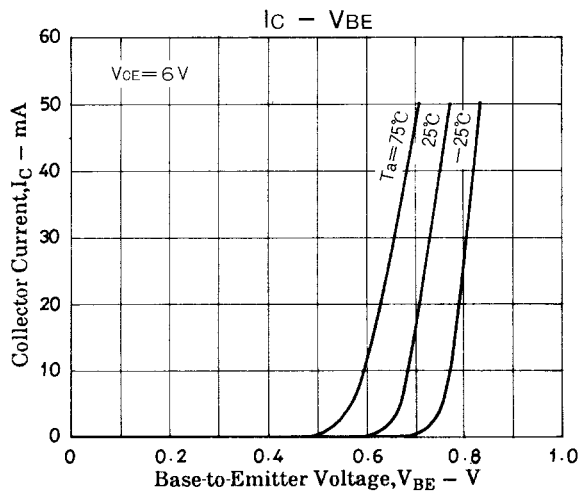
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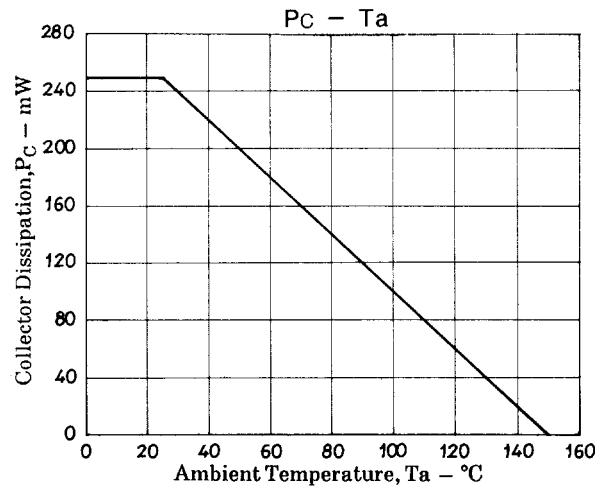
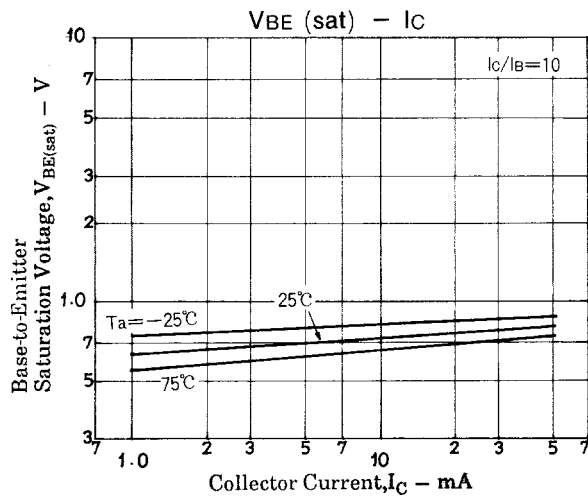
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D1598HA (KT)/5189MO, TS No.3019-1/3

2SC4412

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=10mA, I_B=1mA$			1.0	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=10mA, I_B=1mA$			1.0	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	300			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA, R_{BE}=\infty$	300			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	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_{FE1}/h_{FE2}		0.95		





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