Ordering number : EN2968A

SANYO Semiconductors

DATA SHEET

NPN Triple Diffused Planar Silicon Transistor

2SC4217 — Color TV Chroma Output and Audio Output Applications

Features

- High breakdown voltage (V_{CEO}≥300V).
- Micaless package facilitating easy mounting.

Specifications

Absolute Maximum Ratings at Ta=25°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}		6	V
Collector Current	I_C		200	mA
Collector Current (Pulse)	I_{CP}		400	mA
Collector Dissipation	P_C		1.5	W
		Tc=25°C	10	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		−55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	V_{CB}=200V, I_E=0A			0.1	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=5V, I_C=0A			0.1	μA
DC Current Gain	h_{FE}	V_{CE}=10V, I_C=10mA	40*		200*	

Continued on next page.

* : The 2SC4217 is classified by 10mA h_{FE} as follws:

Rank	C	D	E
h_{FE}	40 to 80	60 to 120	100 to 200

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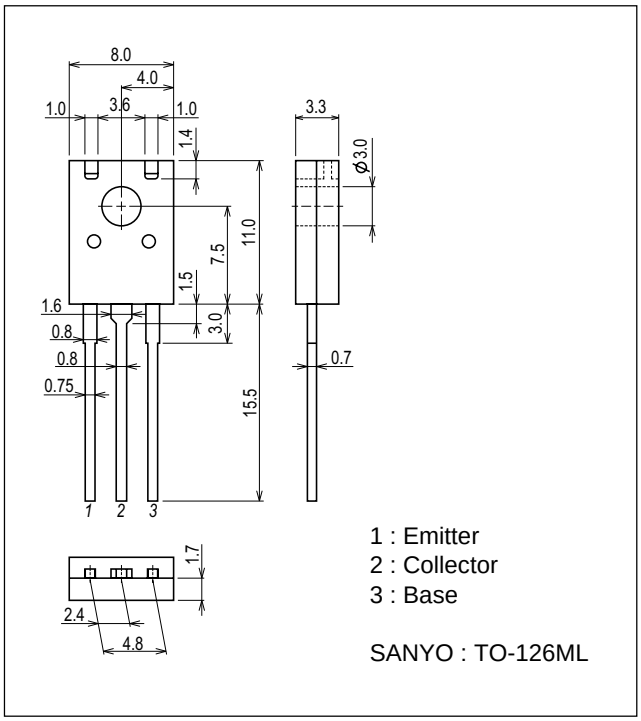
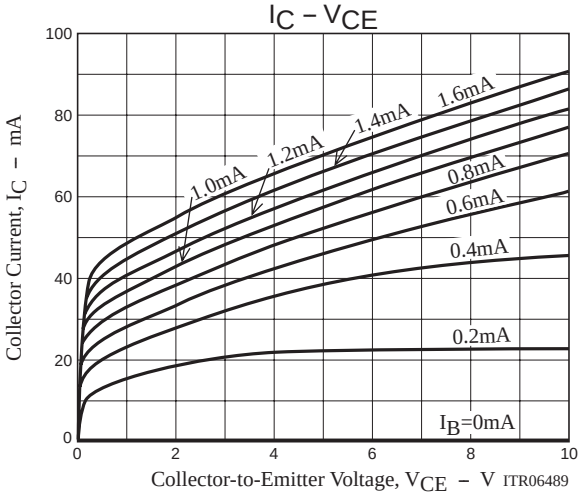
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gain-Bandwidth Product	f_T	V_{CE}=10V, I_C=10mA		70		MHz
Output Capacitance	Cob	V_{CB}=50V, f=1MHz		3.5		pF
Collector-to-Emitter Saturation Voltage	V_{CE}(sat)	I_C=20mA, I_B=2mA			0.6	V
Base-to-Emitter Saturation Voltage	V_{BE}(sat)	I_C=20mA, I_B=2mA			1.0	V

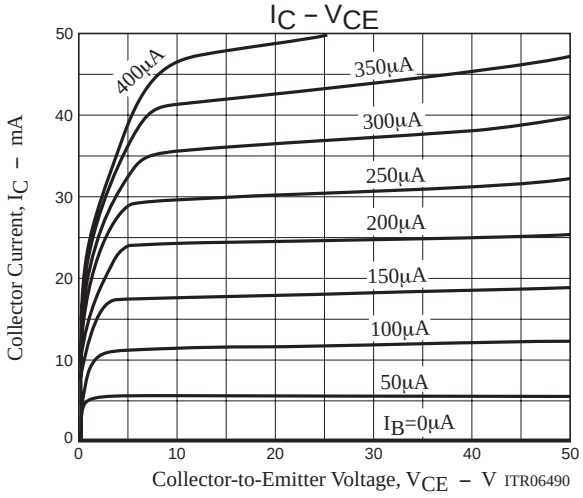
Package Dimensions

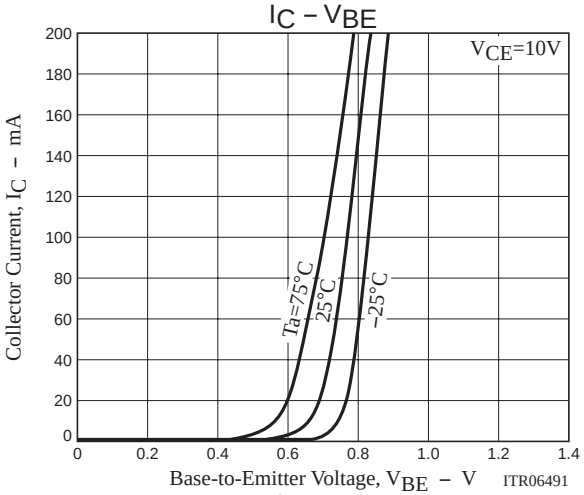
unit : mm (typ)

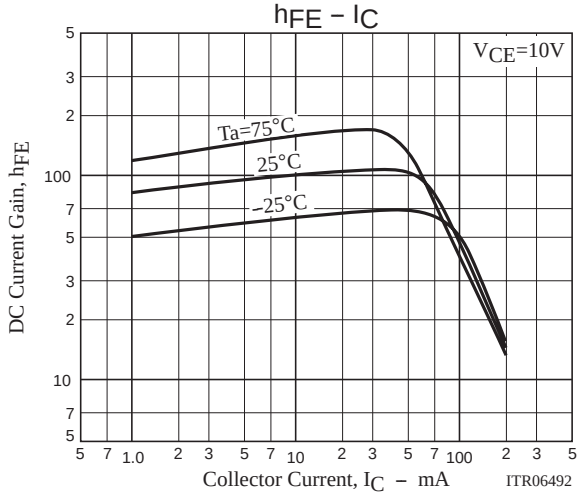
7516-002

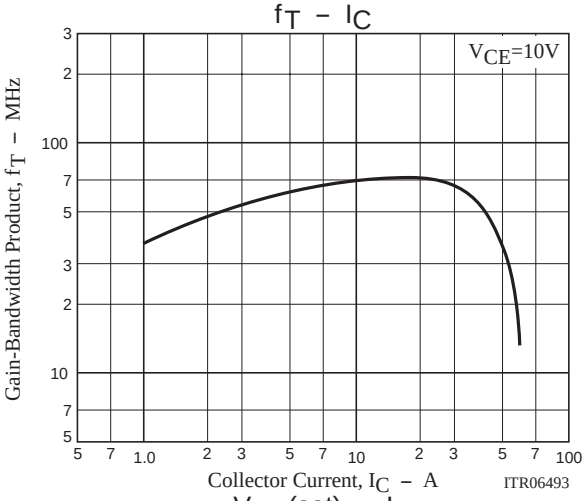


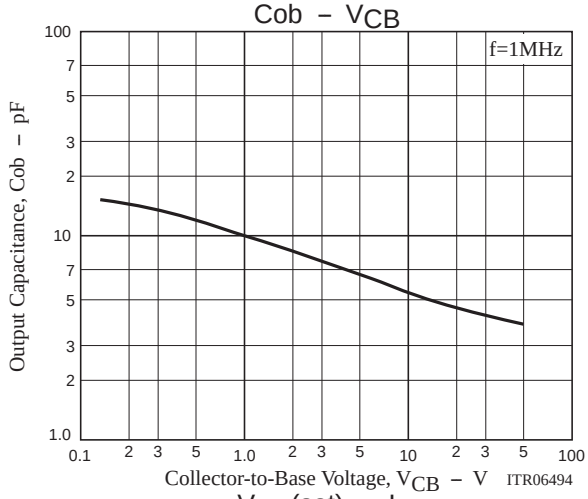


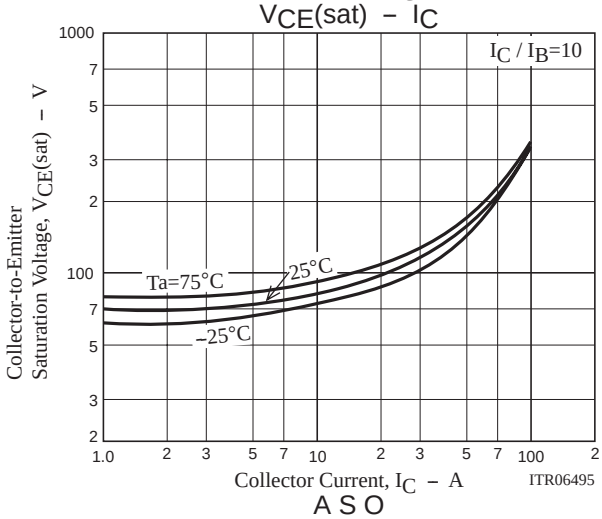


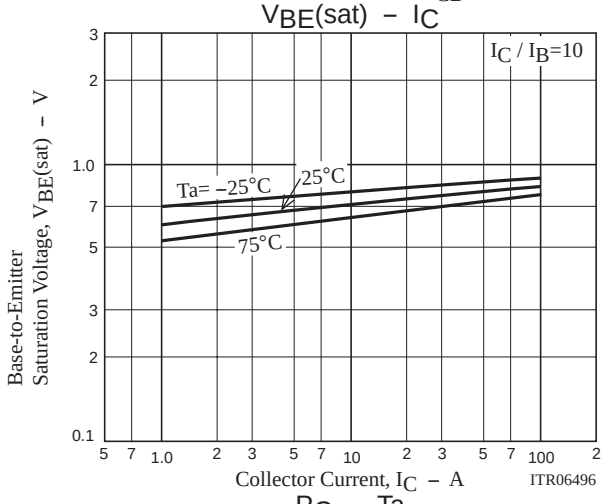

IC – VBE
VCE=10V
Ta=75°C
25°C
–25°C
Collector Current, IC – mA
Base-to-Emitter Voltage, VBE – V
ITR06491

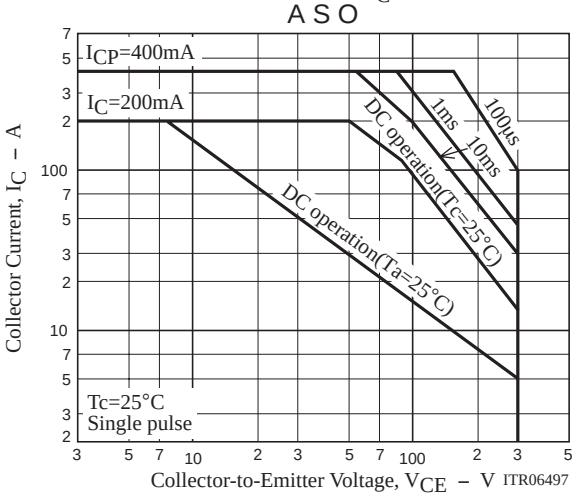

hFE – IC
VCE=10V
Ta=75°C
25°C
–25°C
DC Current Gain, hFE
Collector Current, IC – mA
ITR06492

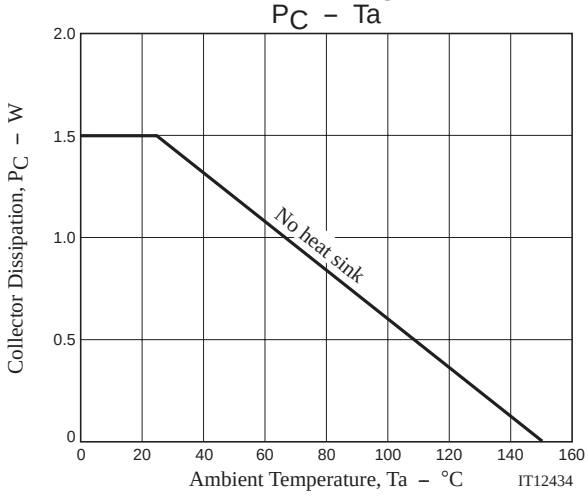

fT – IC
VCE=10V
Gain-Bandwidth Product, fT – MHz
Collector Current, IC – A
ITR06493


Cob – VCB
f=1MHz
Output Capacitance, Cob – pF
Collector-to-Base Voltage, VCB – V
ITR06494


VCE(sat) – IC
IC / IB=10
Ta=75°C
25°C
–25°C
Collector-to-Emitter Saturation Voltage, VCE(sat) – V
Collector Current, IC – A
ITR06495


VBE(sat) – IC
IC / IB=10
Ta= –25°C
25°C
75°C
Base-to-Emitter Saturation Voltage, VBE(sat) – V
Collector Current, IC – A
ITR06496


A S O
ICP=400mA
IC=200mA
1ms
10ms
100µs
DC operation(Tc=25°C)
DC operation(Ta=25°C)
Tc=25°C
Single pulse
Collector Current, IC – A
Collector-to-Emitter Voltage, VCE – V
ITR06497


PC – Ta
No heat sink
Collector Dissipation, PC – W
Ambient Temperature, Ta – °C
IT12434