

SANYO	No.4728	2SC4563
		Epitaxial Planar Silicon Transistor Very High-Definition CRT Display Video Output Applications

Features

- High f_T : $f_T = 1.2\text{GHz}$ typ.
- High breakdown voltage: $V_{CEO} \geq 80\text{V}$.
- High current: $I_C = 500\text{mA}$.
- Small reverse transfer capacitance: $C_{re} = 3.8\text{pF}$ ($V_{CB} = 30\text{V}$).
- Adoption of FBET process.

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

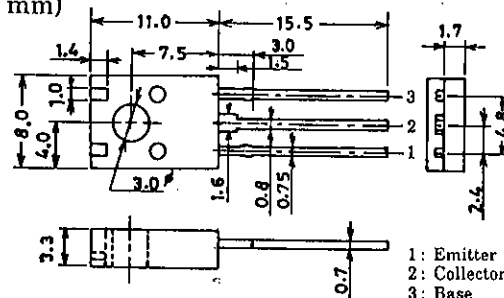
Collector-to-Base Voltage	V_{CBO}	100	V
Collector-to-Emitter Voltage	V_{CEO}	80	V
Emitter-to-Base Voltage	V_{EBO}	3	V
Collector Current	I_C	500	mA
Collector Current (Pulse)	I_{CP}	1.0	A
Collector Dissipation	P_C	1.3	W
		10	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

$T_c = 25^\circ\text{C}$

Electrical Characteristics at $T_a = 25^\circ\text{C}$

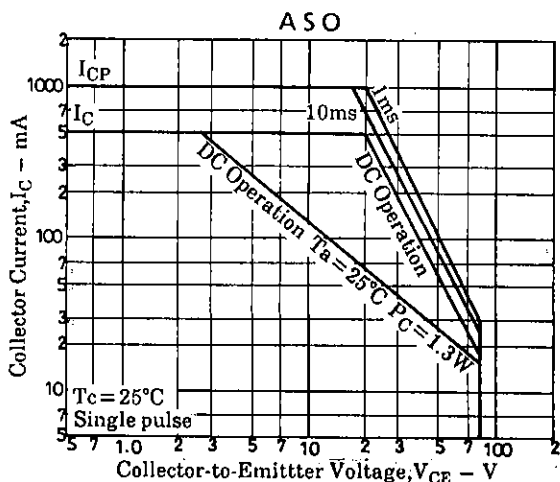
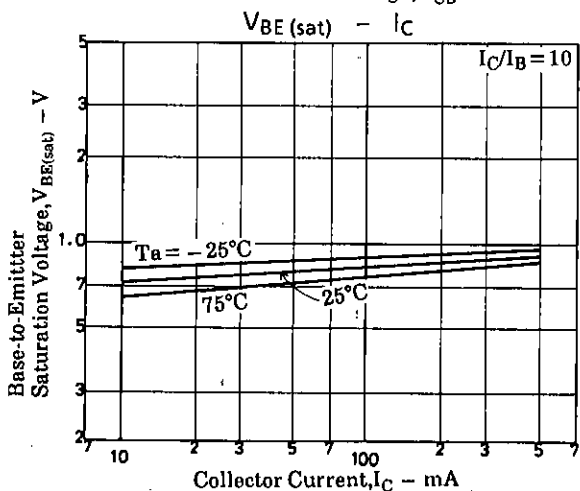
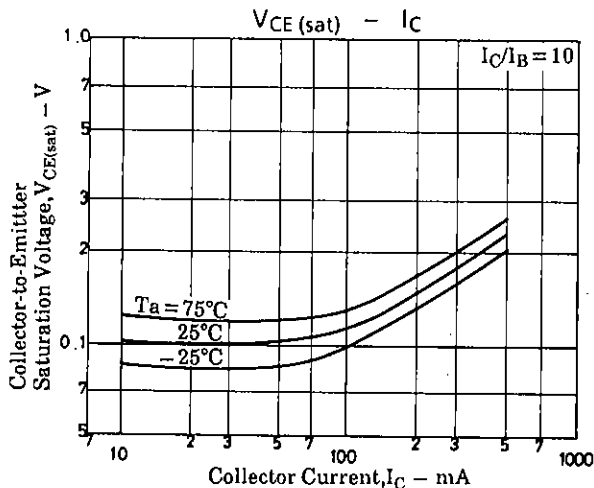
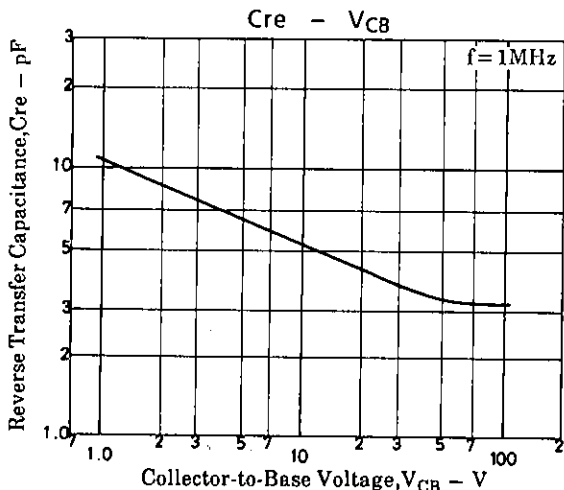
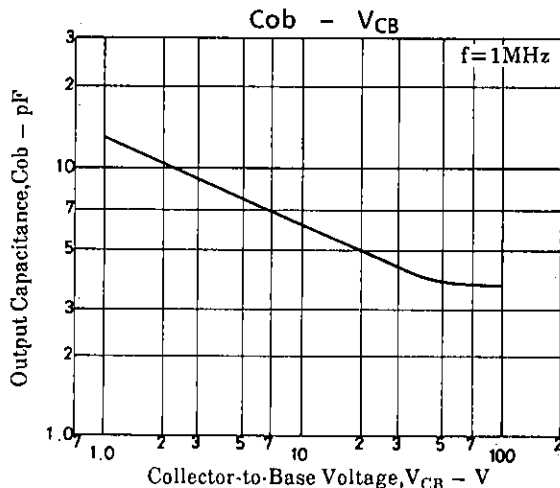
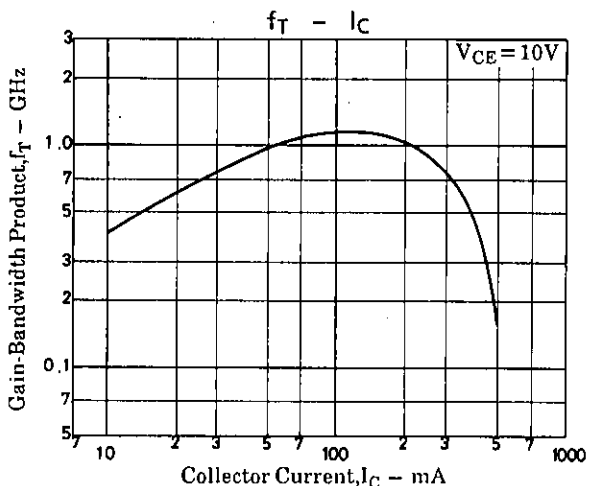
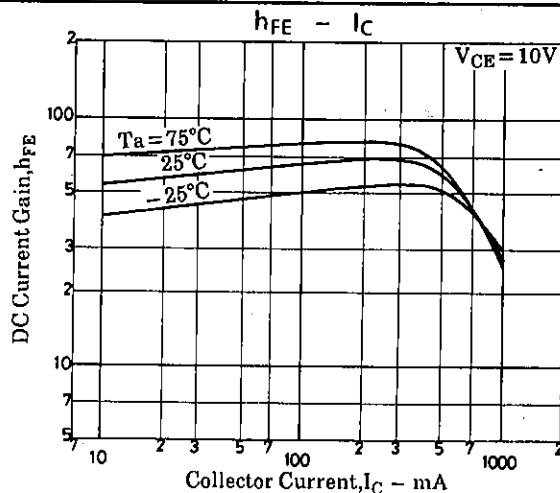
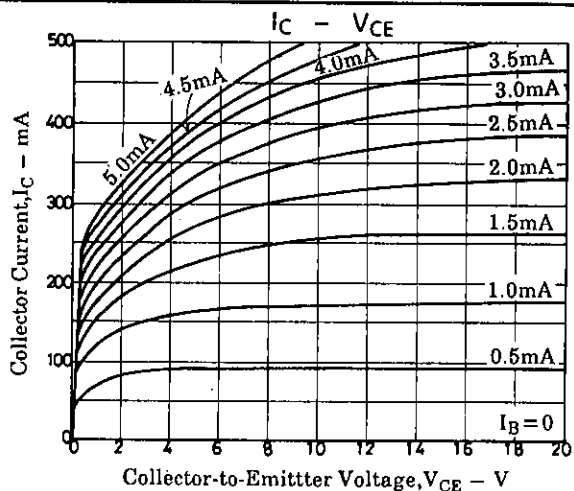
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 80\text{V}, I_E = 0$			0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 2\text{V}, I_C = 0$			5.0	μA
DC Current Gain	$h_{FE}(1)$	$V_{CE} = 10\text{V}, I_C = 50\text{mA}$	30		200	
	$h_{FE}(2)$	$V_{CE} = 10\text{V}, I_C = 500\text{mA}$	20			
Gain-Bandwidth Product	f_T	$V_{CE} = 10\text{V}, I_C = 100\text{mA}$		1.2		GHz
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = 300\text{mA}, I_B = 30\text{mA}$			0.6	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = 300\text{mA}, I_B = 30\text{mA}$			1.2	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 10\mu\text{A}, I_E = 0$	100			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 1\text{mA}, R_{BE} = \infty$	80			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 100\mu\text{A}, I_C = 0$	3			V
Output Capacitance	C_{ob}	$V_{CB} = 30\text{V}, f = 1\text{MHz}$		4.4		pF
Reverse Transfer Capacitance	C_{re}	$V_{CB} = 30\text{V}, f = 1\text{MHz}$		3.8		pF

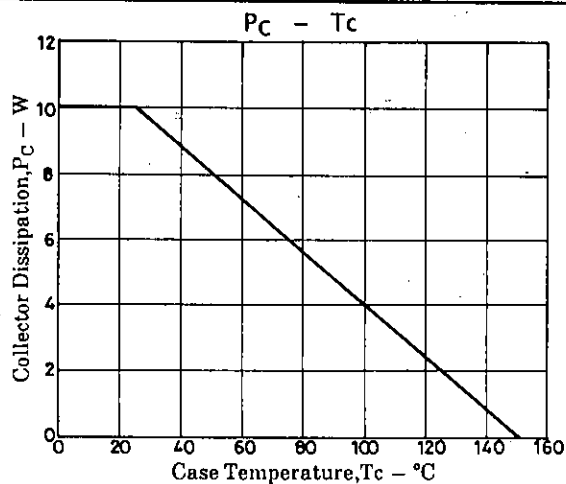
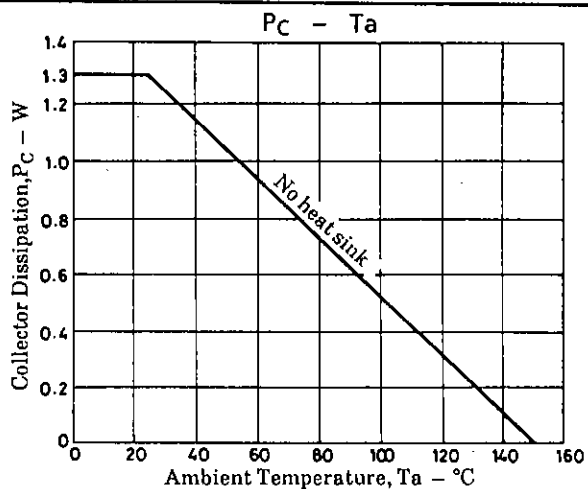
Package Dimensions 2042B
(unit: mm)



1: Emitter
2: Collector
3: Base

SANYO: TO126ML





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