Ordering number: EN 4728

SANYO

No.4728

2SC4563

Epitaxial Planar Silicon Transistor

Very High-Definition CRT Display Video Output Applications

Features

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

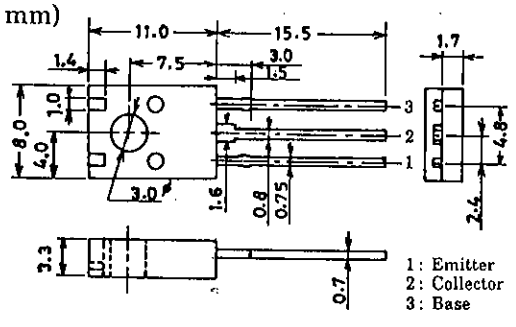
Absolute Maximum Ratings at Ta = 25°C

				unit
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
		Tc = 25°C	10	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		−55 to +150	°C

Electrical Characteristics at Ta = 25°C

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

Package Dimensions 2042B
(unit : mm)



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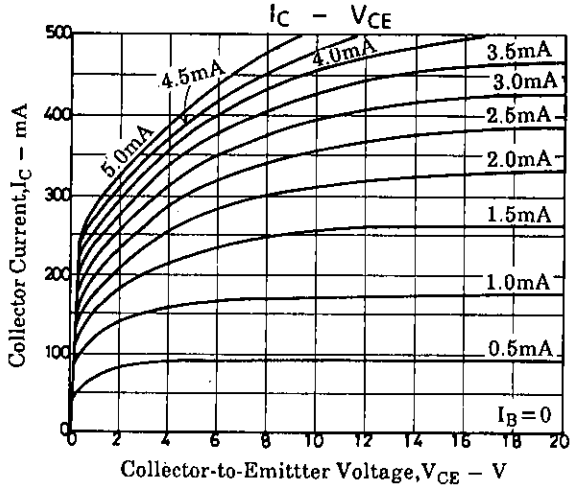
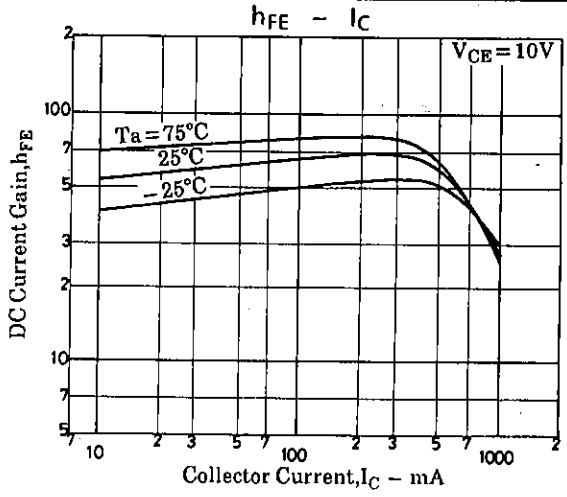
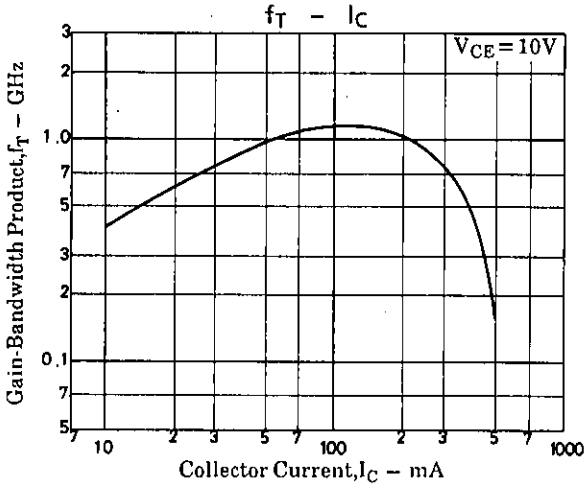
I_C – V_{CE}



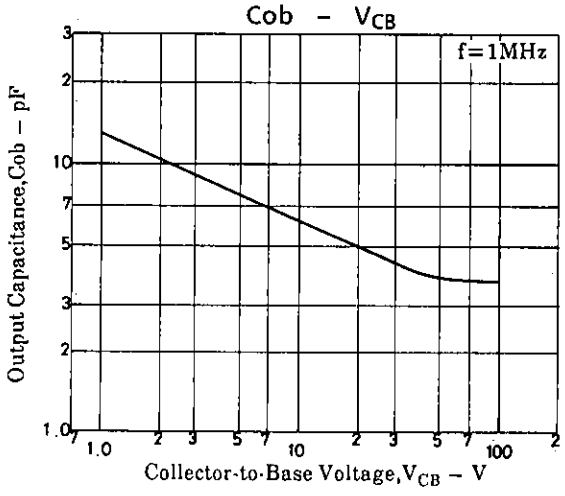
h_{FE} – I_C



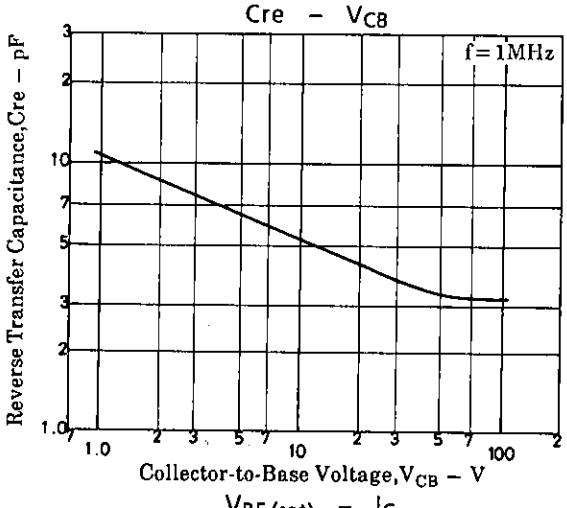
f_T – I_C



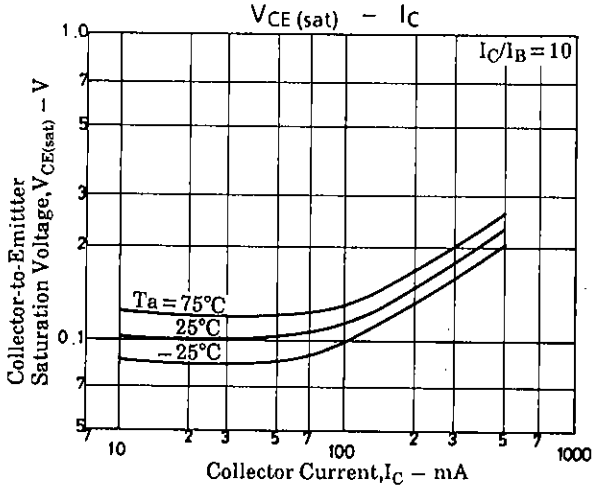
Cob – V_{CB}



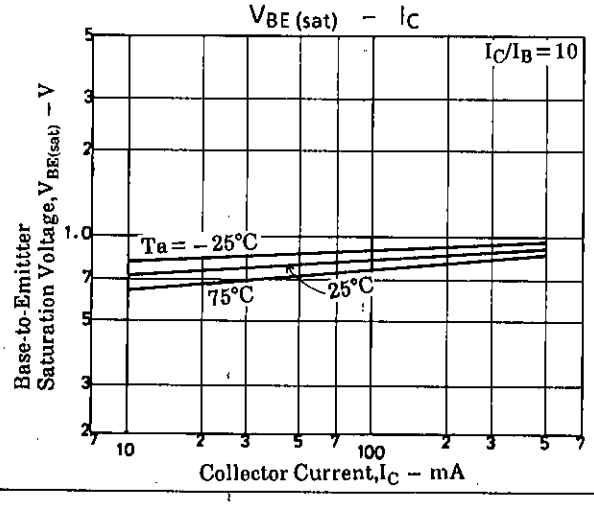
Cre – V_{CB}



$V_{CE\,(sat)}$ – I_C



$V_{BE\,(sat)}$ – I_C



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