Ordering number:EN2924A

NPN Triple Diffused Planar Silicon Transistor

2SC4256

1200V/10mA High-Voltage Amplifier, High-Voltage Switching Applications

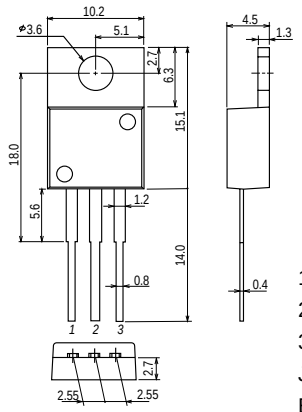
Features

- High breakdown voltage.
- Small C_{ob}.
- Wide ASO.
- High reliability (Adoption of HVP process).

Package Dimensions

unit:mm

2010C



1 : Base
2 : Collector
3 : Emitter
JEDEC : TO-220AB
EIAJ : SC-46

Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		1500	V
Collector-to-Emitter Voltage	V_{CEO}		1200	V
Emitter-to-Base Voltage	V_{EBO}		5	V
Collector Current	I_C		10	mA
Collector Current (Pulse)	I_{CP}		30	mA
Collector Dissipation	P_C		1.75	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}=1200V, I_E=0			1	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=4V, I_C=0			1	μA
DC Current Gain	h_{FE}	V_{CE}=5V, I_C=0.5mA	10		60	
Gain-Bandwidth Product	f_T	V_{CE}=10V, I_C=0.5mA		6		MHz
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=1mA, I_B=0.2mA			5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=1mA, I_B=0.2mA			2	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=100μA, I_E=0	1500			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=1mA, R_{BE}=∞	1200			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=100μA, I_C=0	5			V
Output Capacitance	C_{ob}	V_{CB}=100V, f=1MHz		1.6		pF

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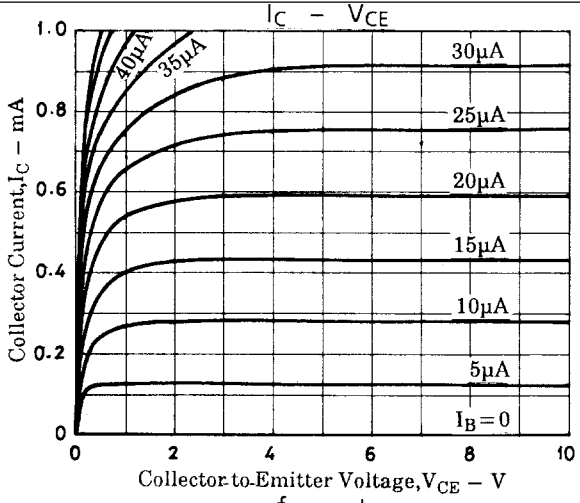
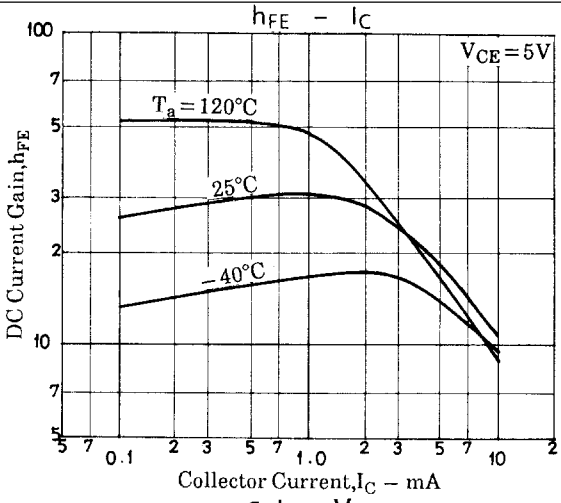
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

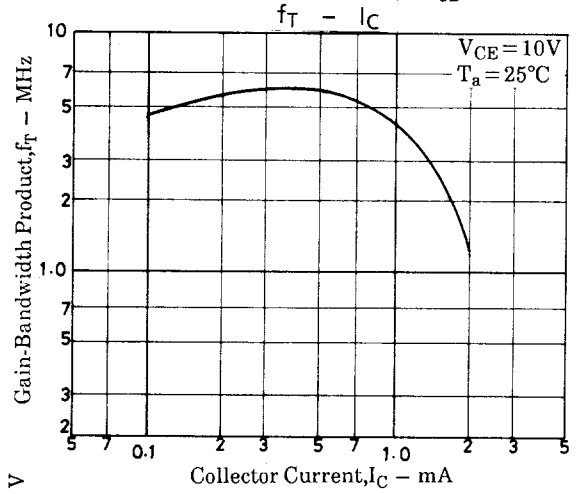
I_C – V_{CE}



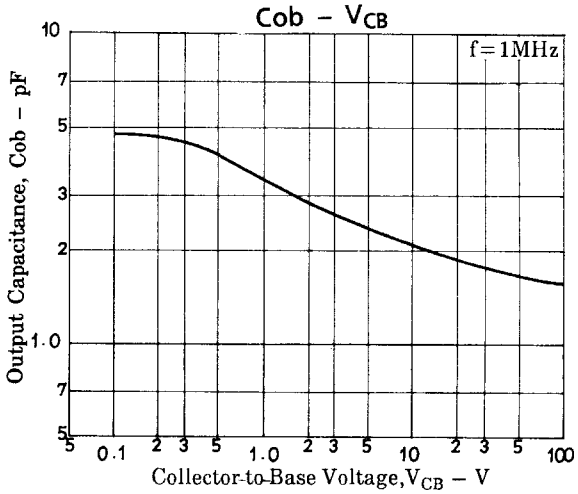
h_{FE} – I_C



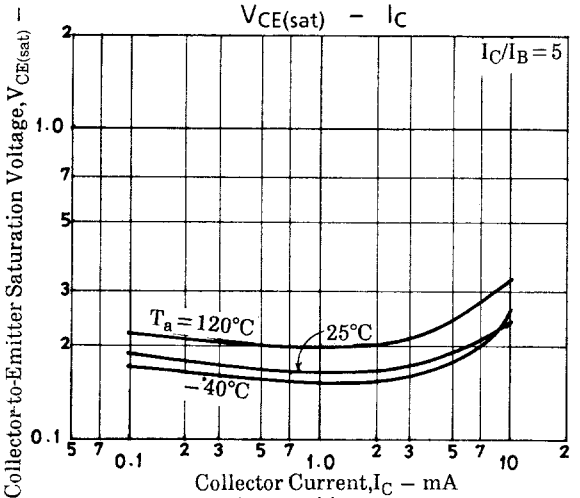
f_T – I_C



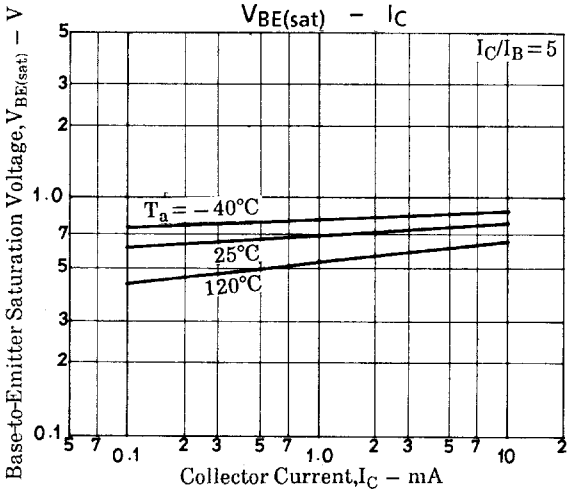
Cob – V_{CB}



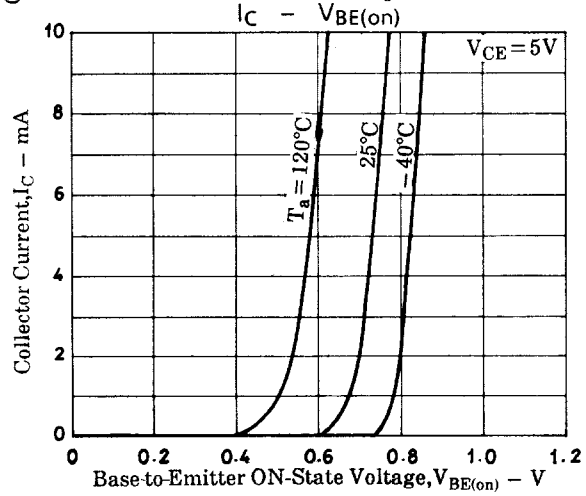
$V_{CE(sat)}$ – I_C



$V_{BE(sat)}$ – I_C



I_C – $V_{BE(on)}$



Forward Bias A S O