



SANYO Semiconductors

DATA SHEET

2SA2127 — PNP Epitaxial Planar Silicon Transistor

High-Current Switching Applications

Applications

- Voltage regulators, relay drivers, lamp drivers, electrical equipment.

Features

- Adoption of MBIT process.
- Low saturation voltage.
- High current capacity and wide ASO.

Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	VCBO		-50	V
Collector-to-Emitter Voltage	VCEO		-50	V
Emitter-to-Base Voltage	VEBO		-6	V
Collector Current	IC		-2	A
Collector Current (Pulse)	ICP		-4	A
Base Current	IB		-400	mA
Collector Dissipation	PC		1	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	ICBO	V _{CB} =-40V, I _E =0			-1	μA
Emitter Cutoff Current	IEBO	V _{EB} =-4V, I _C =0			-1	μA
DC Current Gain	h _{FE1}	V _{CE} =-2V, I _C =-100mA	200		560	
	h _{FE2}	V _{CE} =-2V, I _C =-1.5A	40			
Gain-Bandwidth Product	f _T	V _{CE} =-10V, I _C =-300mA		420		MHz
Output Capacitance	Cob	V _{CB} =-10V, f=1MHz		16		pF

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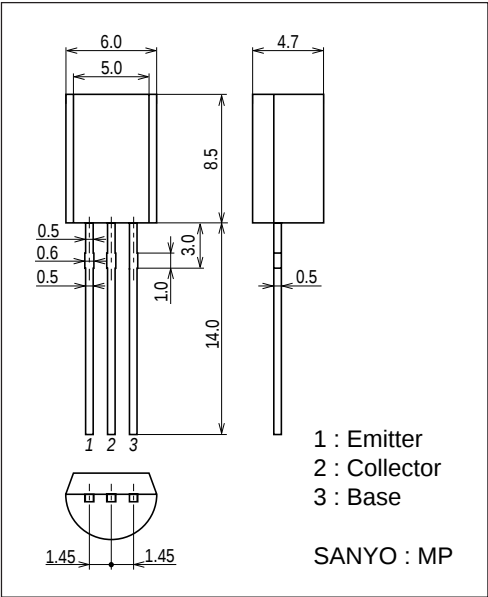
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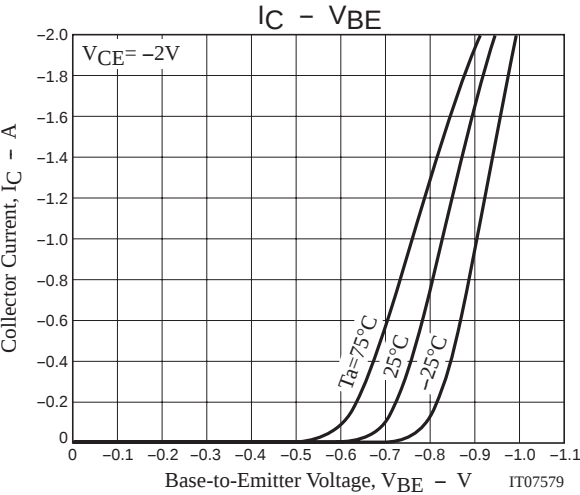
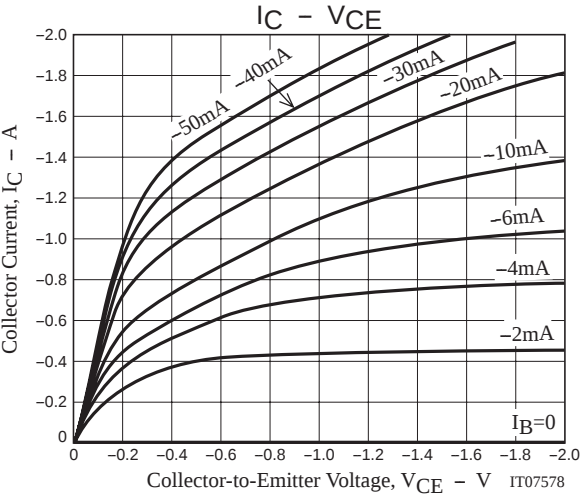
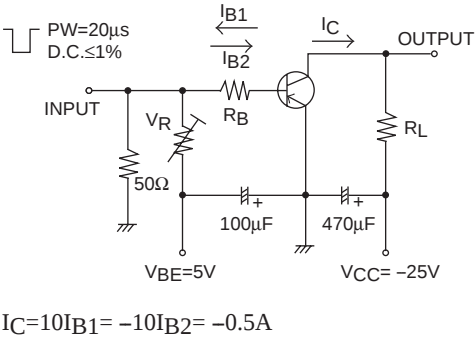
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -1A, I_B = -50mA$		-0.2	-0.4	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -1A, I_B = -50mA$		-0.9	-1.2	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu A, I_E = 0$	-50			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1mA, R_{BE} = \infty$	-50			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = 0$	-6			V
Turn-On Time	t_{on}	See specified test circuit.		35		ns
Storage Time	t_{stg}	See specified test circuit.		250		ns
Fall Time	t_f	See specified test circuit.		24		ns

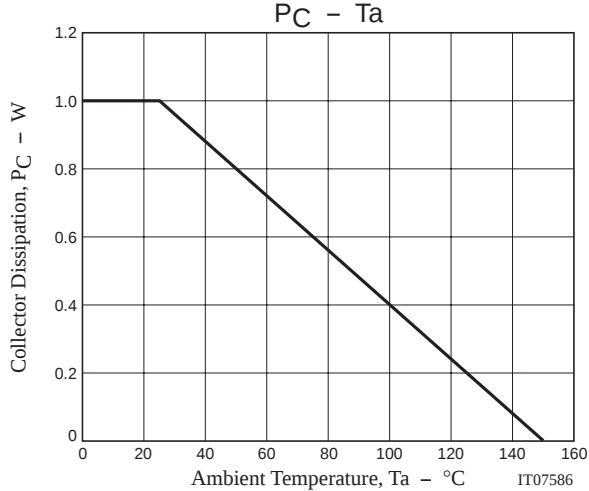
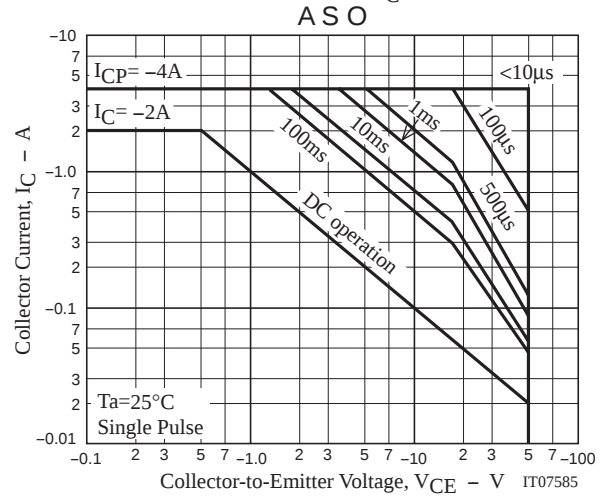
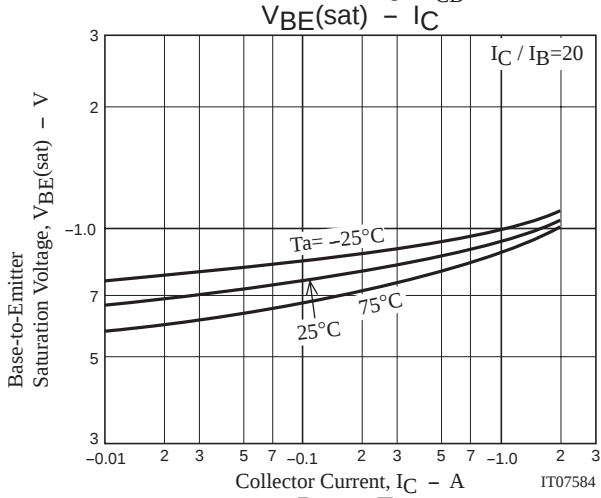
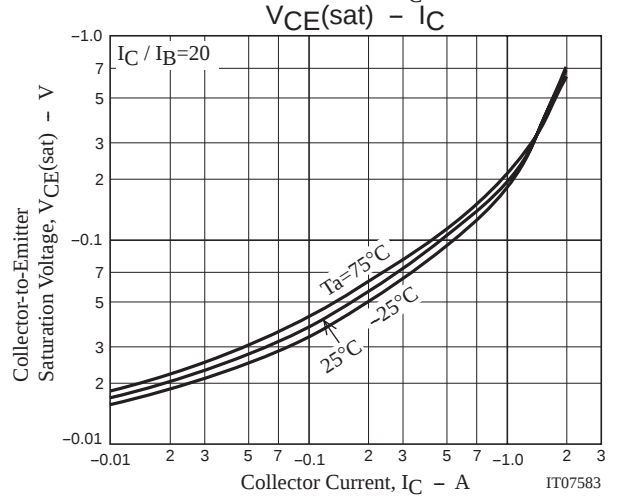
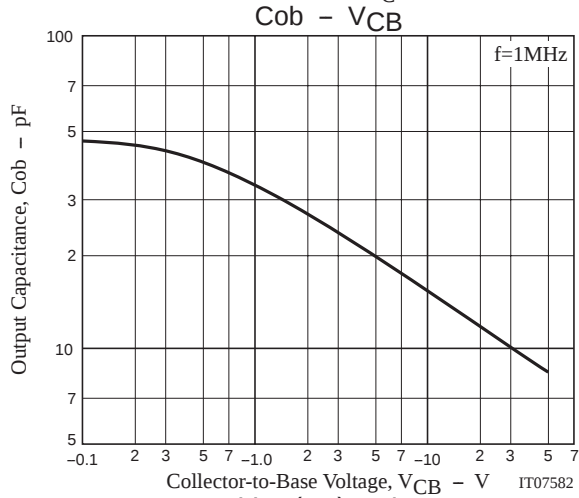
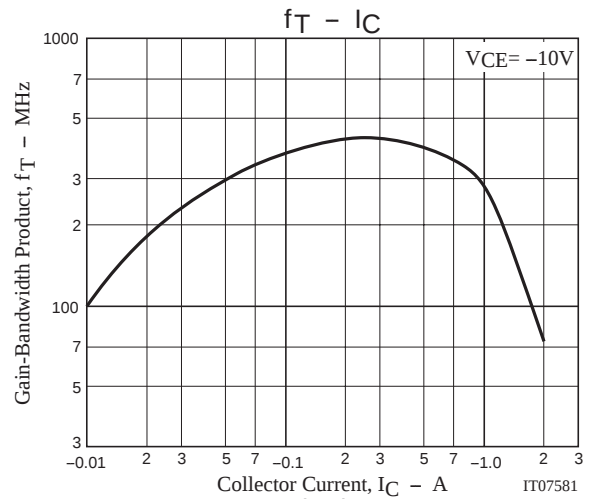
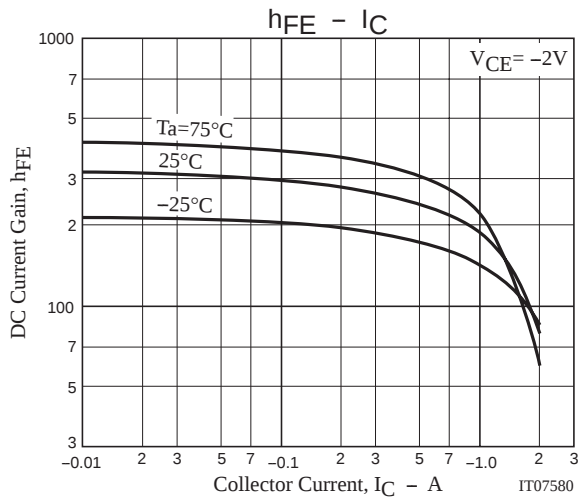
Package Dimensions

unit : mm
2006C



Switching Time Test Circuit





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