

High-Current Switching Applications

- Relay control, motor control, switching

- . Low saturation voltage
- . On-chip diode between collector and emitter
- . Small and slim package permitting 2SD1806-applied sets to be made more compact

Collector to Base Voltage	V_{CBO}	40	V
Collector to Emitter Voltage	V_{CEO}	30	V
Emitter to Base Voltage	V_{EB0}	5	V
Collector Current	I_C	2	A
Collector Current(Pulse)	I_{CP}	4	A
Collector Dissipation	P_C	1	W
	$T_c=25^{\circ}\text{C}$	15	W
Junction Temperature	T_j	150	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^{\circ}\text{C}$

		min	typ	max	unit
Collector Cutoff Current	I_{CBO}			1.0	μA
DC Current Gain	$h_{FE(1)}$		50		
	$h_{FE(2)}$		50		
Gain-Bandwidth Product	f_T		150		MHz
Output Capacitance	c_{ob}		40		pF
C-E Saturation Voltage	$V_{CE(sat)}$		0.25	0.5	V
B-E Saturation Voltage	$V_{BE(sat)}$		0.92	1.5	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	40			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	30			V
Forward Voltage	V_F		0.9	1.2	V
Resistance between Base and Emitter	R_{BE}		1.0		k Ω

(unit:mm)

Top view dimensions: 6.5, 5.0, 1.5, 2.3, 0.5, 4, 0.85, 0.7, 0.6, 0.8, 1.6, 7.5, 5.5, 7.0.

Side view dimensions: 1.2, 0.5.

Bottom view dimensions: 2.3, 2.3.

Legend:

- 1: Base
- 2: Collector
- 3: Emitter
- 4: Collector

mm)

6.5
5.0
1.5
4
5.5
7.0
2.5
0.85
0.6
1
2
3
4

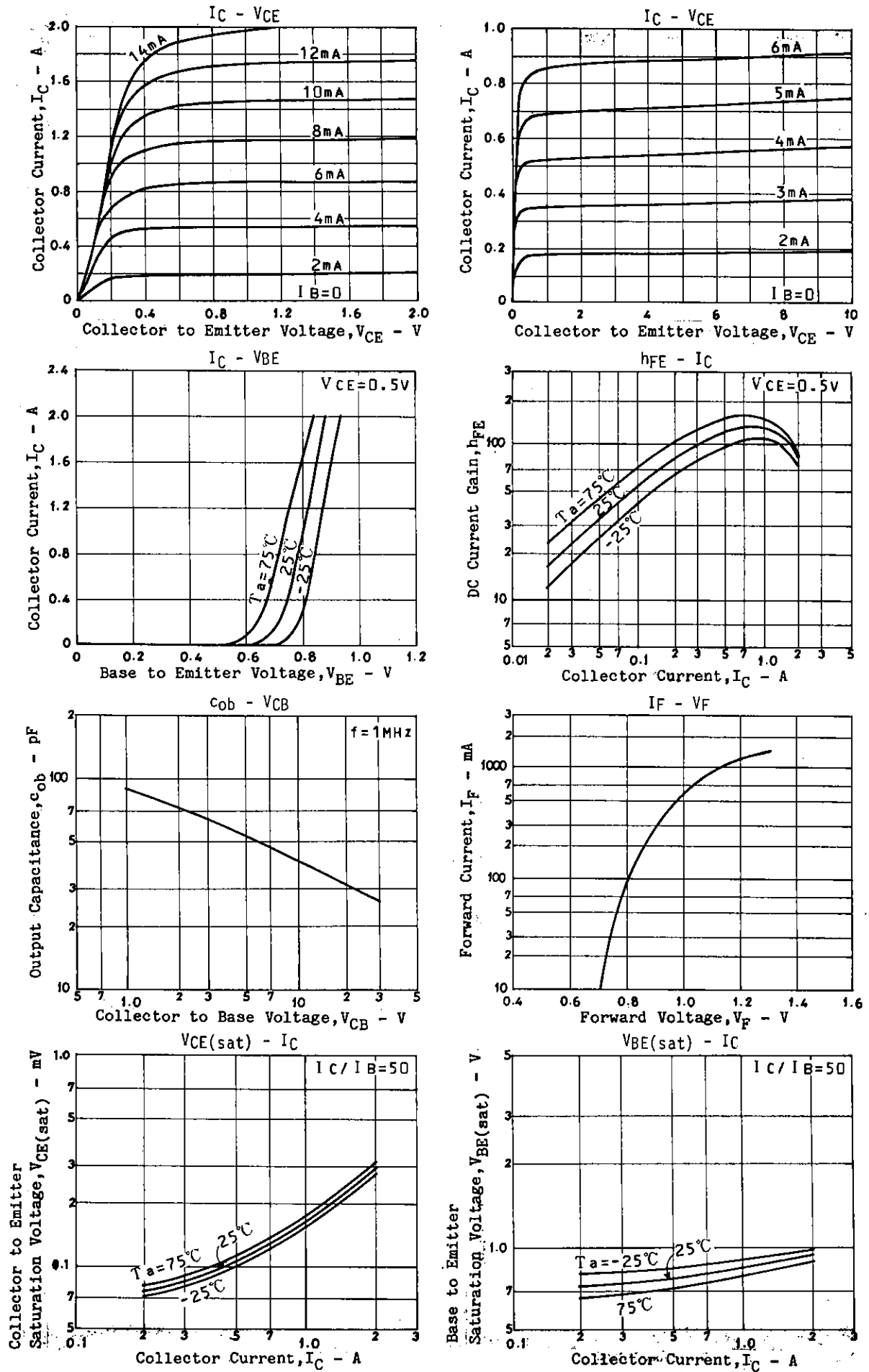
2.3
0.5
0.5
1.2

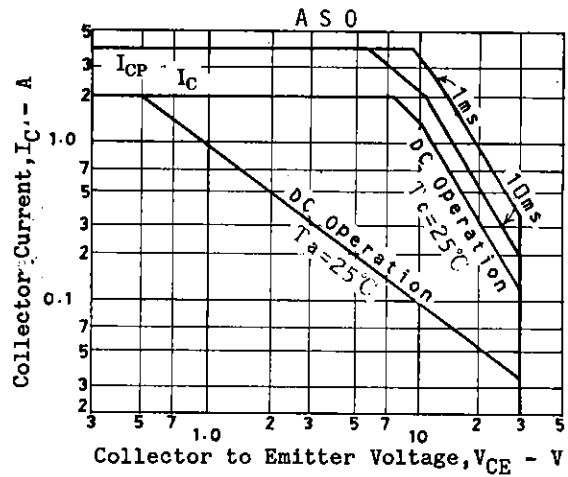
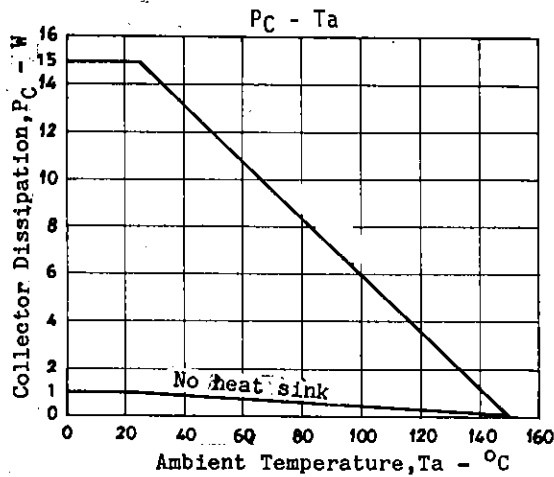
1: Base
2: Collector
3: Emitter
4: Collector

SANYO:TP-FA

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