

SANYO

No.784E

2SD1145

NPN Epitaxial Planar Silicon Transistor

High-Current Driver Applications

Applications

- Relay drivers, hammer drivers, lamp drivers, strobe DC-DC converttrers, motor drivers.

Features

- Low saturation voltage
- Large current capacity and wide ASO

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

			unit
Collector to Base Voltage	V_{CBO}	60	V
Collector to Emitter Voltage	V_{CEO}	20	V
Emitter to Base Voltage	V_{EBO}	6	V
Collector Current	I_C	5	A
Collector Current(Pulse)	I_{CP}	8	A
Collector Dissipation	P_C	0.9	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

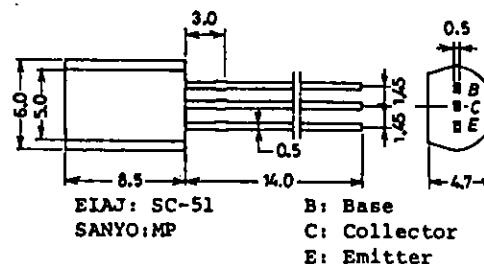
Electrical Characteristics at $T_a = 25^\circ\text{C}$

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 50\text{V}, I_E = 0$			1.0	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 5\text{V}, I_C = 0$			1.0	μA
DC Current Gain	$h_{FE}(1)$	$V_{CE} = 2\text{V}, I_C = 0.5\text{A}$	100*		560*	
	$h_{FE}(2)$	$V_{CE} = 2\text{V}, I_C = 3\text{A (Pulse)}$	75			
Gain-Bandwidth Product	f_T	$V_{CE} = 10\text{V}, I_C = 50\text{mA}$		120		MHz
Output Capacitance	c_{ob}	$V_{CB} = 10\text{V}, f = 1\text{MHz}$		45		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = 3\text{A}, I_B = 60\text{mA (Pulse)}$			0.5	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = 3\text{A}, I_B = 60\text{mA (Pulse)}$			1.5	V

* : The 2SD1145 is classified by 0.5A h_{FE} as follows :

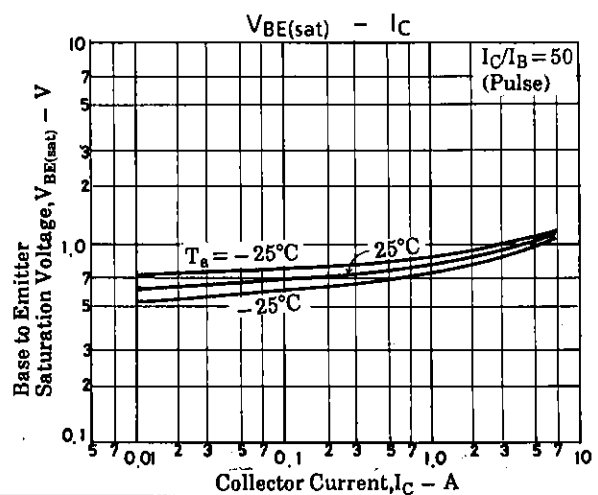
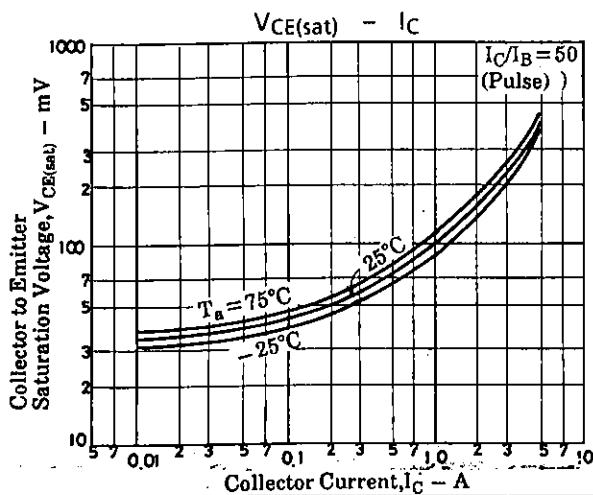
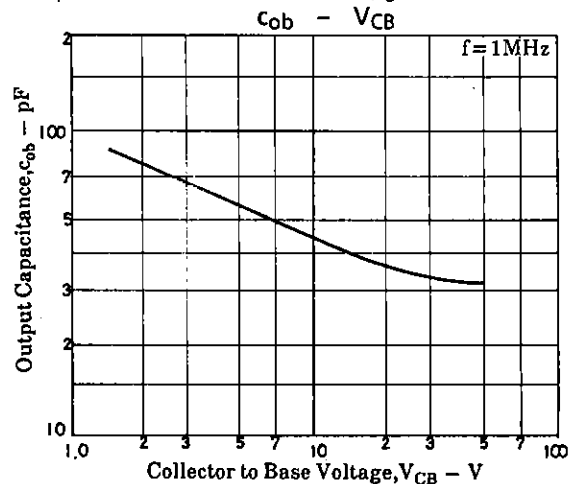
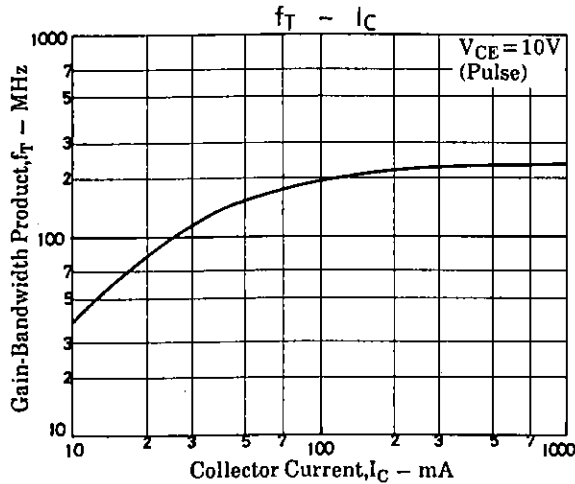
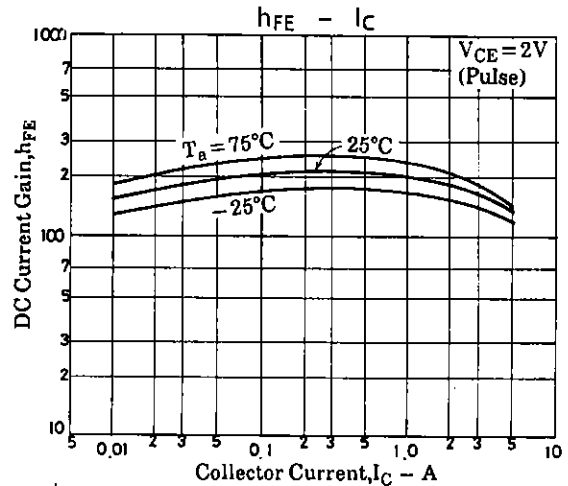
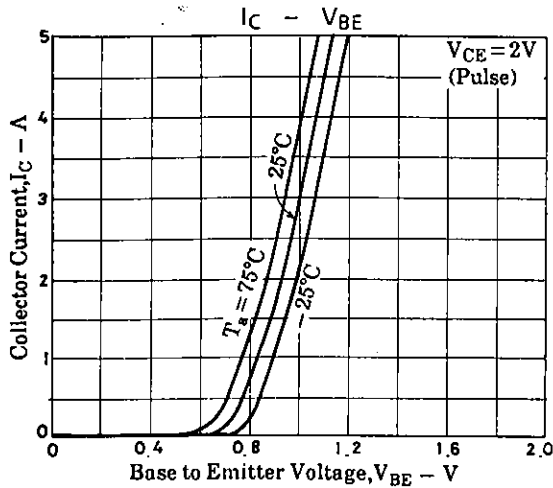
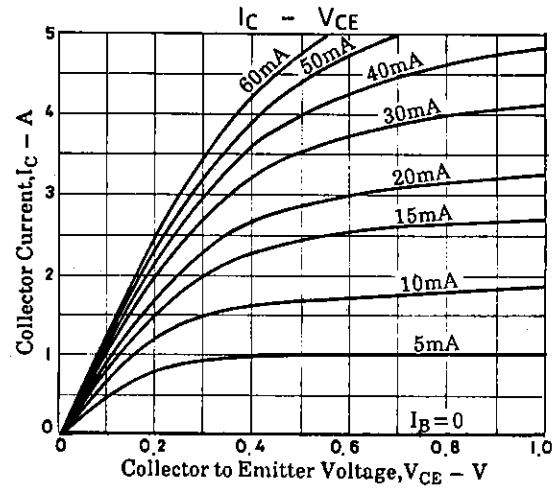
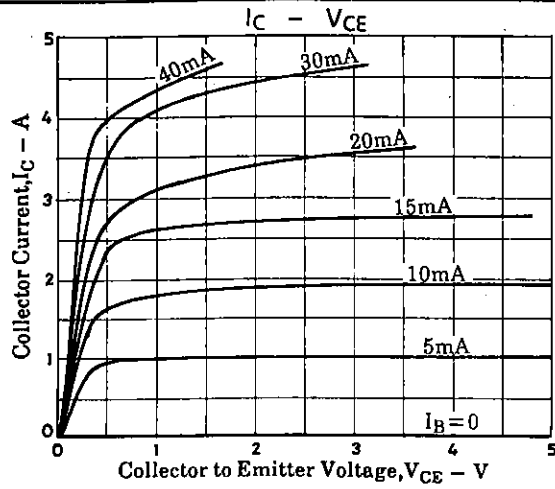
100	E	200	160	F	320	280	G	560
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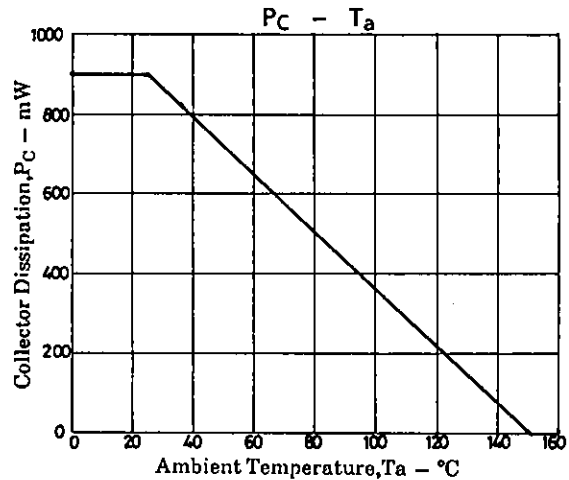
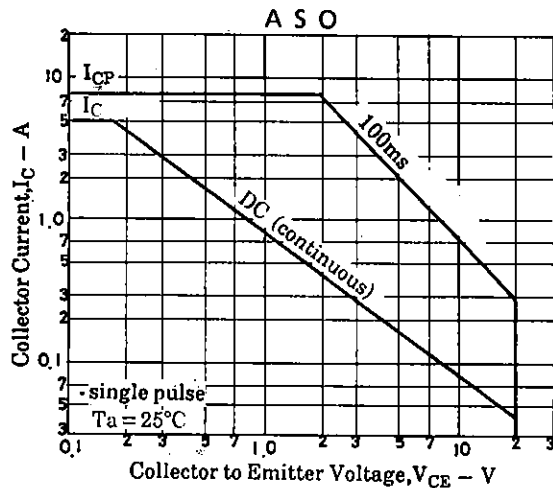
Package Dimensions 2006A
(unit: mm)



SANYO Electric Co., Ltd. Semiconductor Business Headquarters
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

2090MO/5257KI/3095KI, 6212KI, ki No.784-1/3





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