

**2SD1145****High-Current Driver Applications****Applications**

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

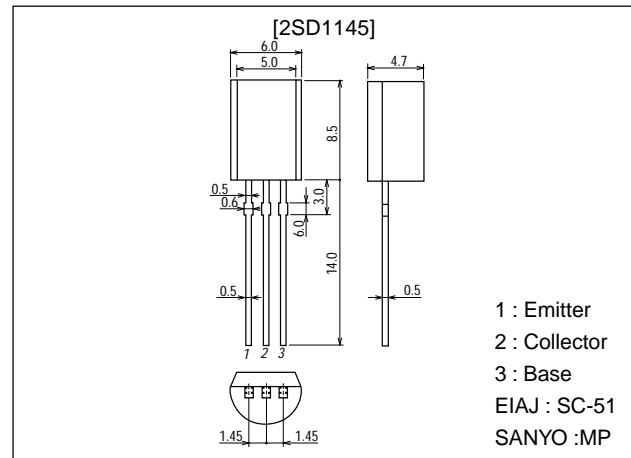
Features

- Low saturation voltage.
- Large current capacity and wide ASO.

Package Dimensions

unit:mm

2006B

**Specifications****Absolute Maximum Ratings at Ta = 25°C**

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CB0}		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}	100ms, single pulse	8	A
Collector Dissipation	P_C		0.9	W
Junction Temperature	T_J		150	°C
Storage Temperature	T_{stg}		-55 to +150	°C

Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=50V, I_E=0$			1.0	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=5V, I_C=0$			1.0	μA
DC Current Gain	h_{FE1}	$V_{CE}=2V, I_C=0.5A$	100*		560*	
	h_{FE2}	$V_{CE}=2V, I_C=3A$ (Pulse)	75			
Gain-Bandwidth Product	f_T	$V_{CE}=10V, I_C=50mA$		120		MHz
Output Capacitance	C_{ob}	$V_{CB}=10V, f=1MHz$		45		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=3A, I_B=60mA$ (Pulse)			0.5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=3A, I_B=60mA$ (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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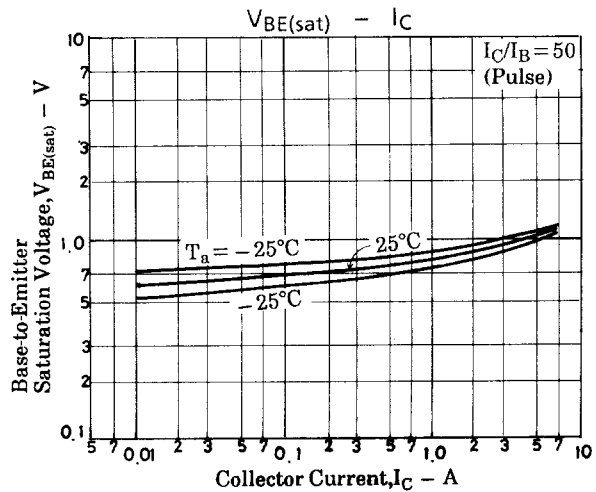
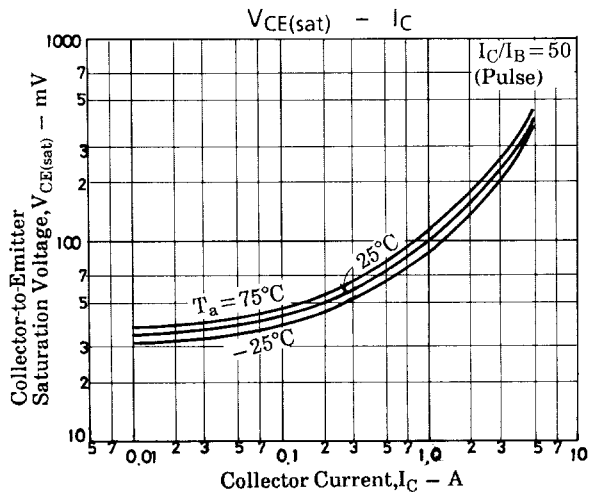
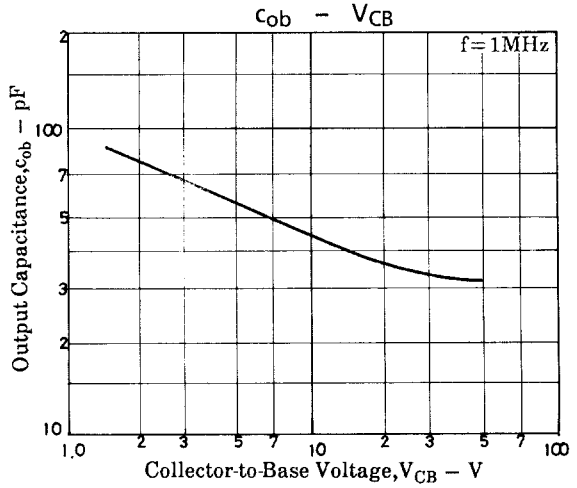
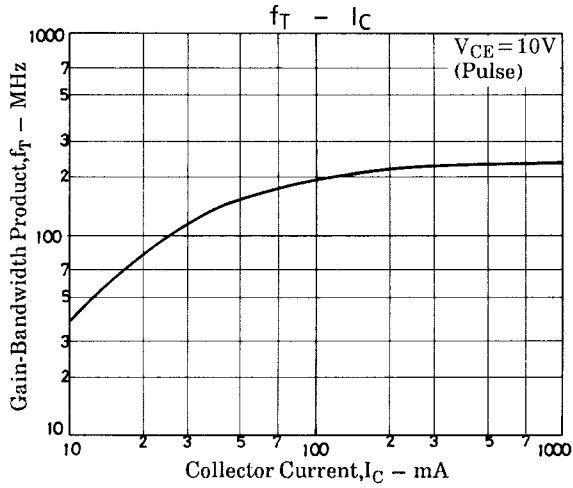
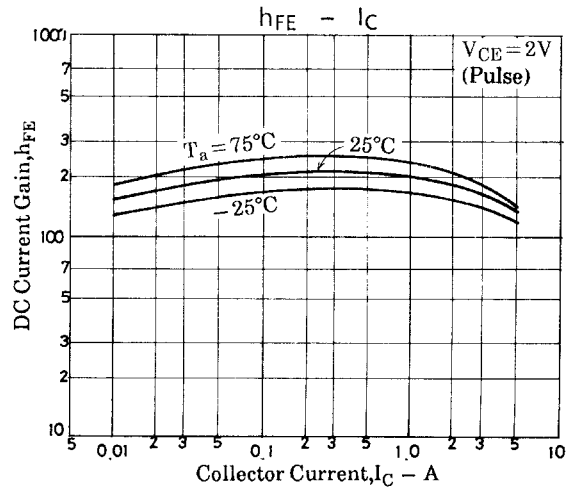
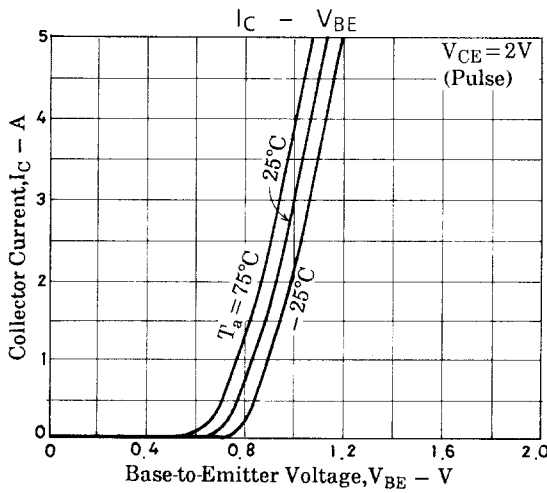
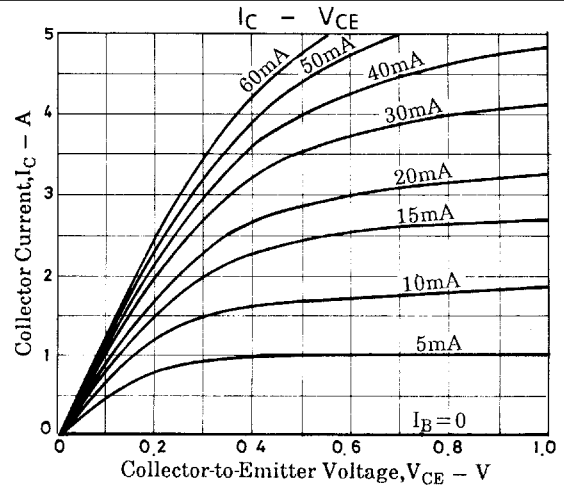
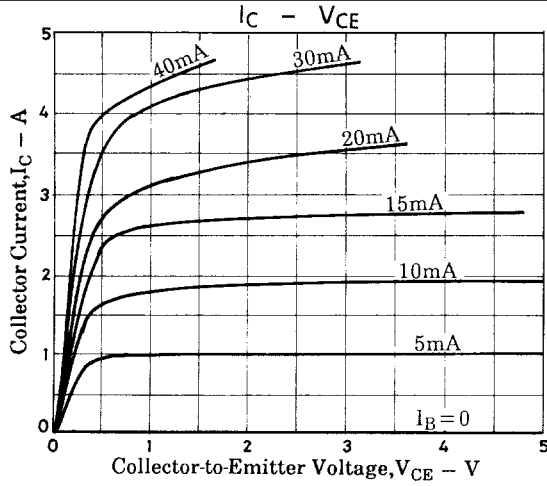
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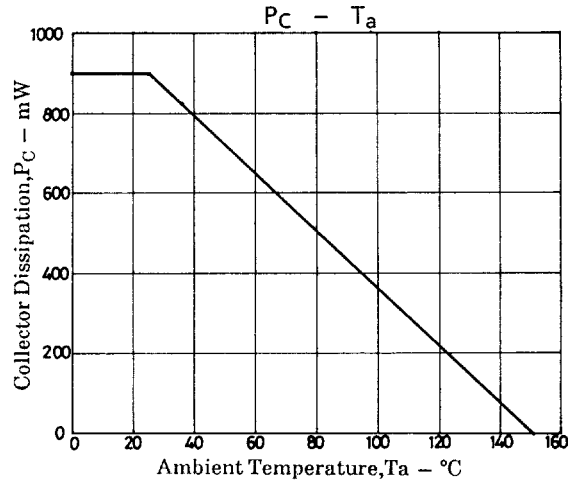
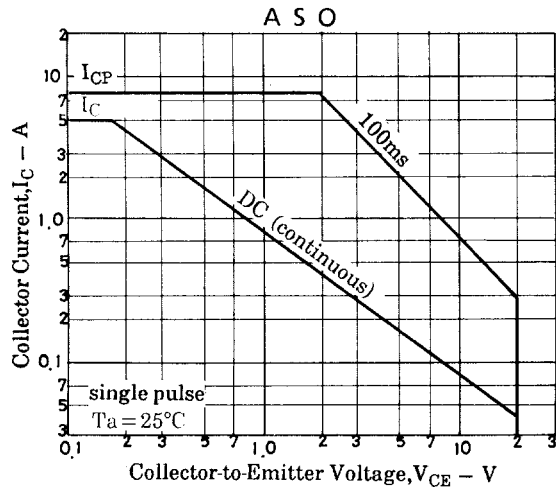
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