

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

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

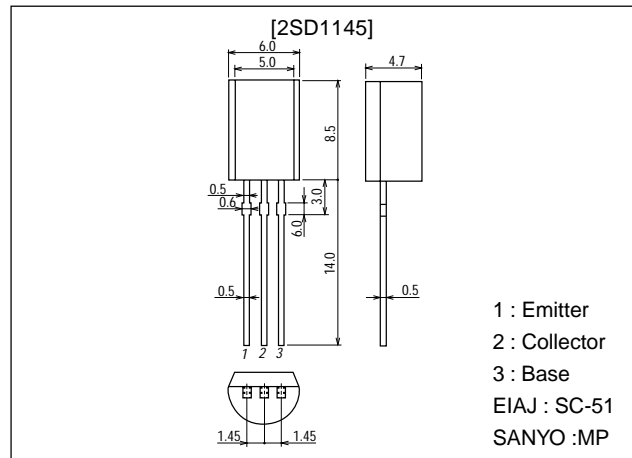
**Features**

- 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	$\mu A$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=5V, I_C=0$			1.0	$\mu A$
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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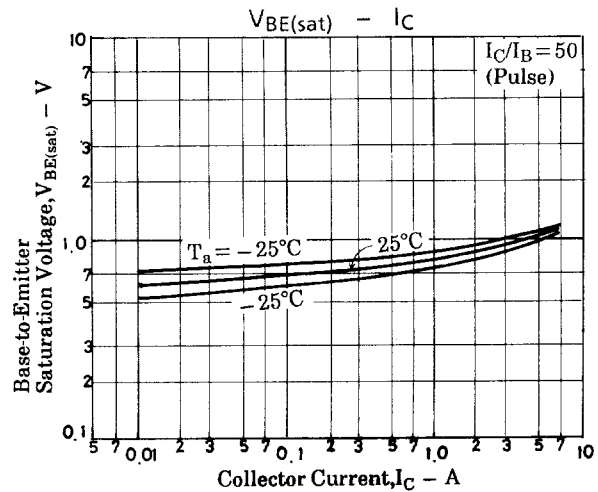
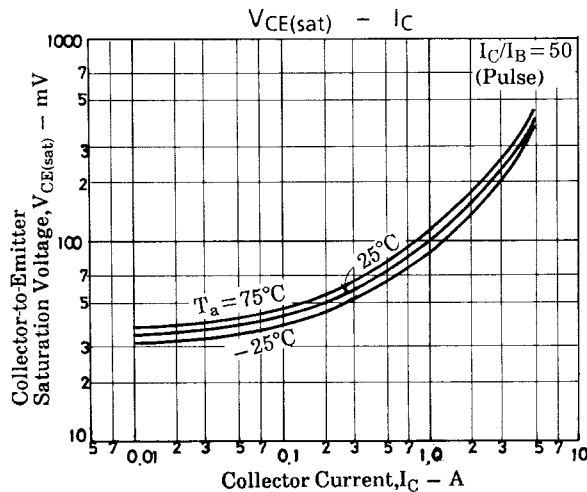
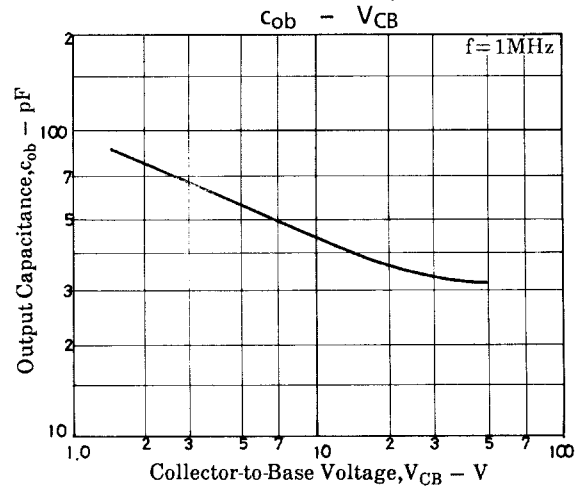
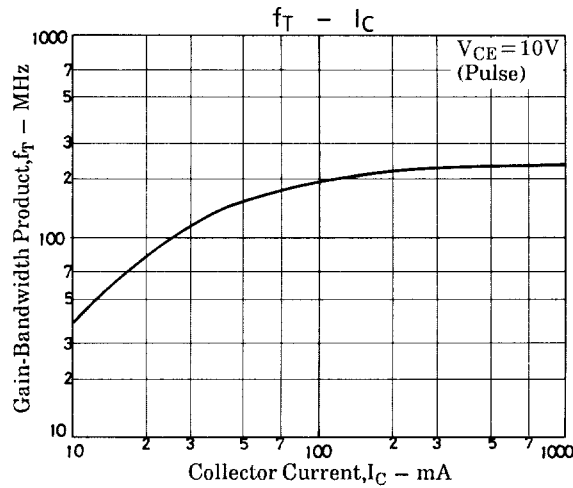
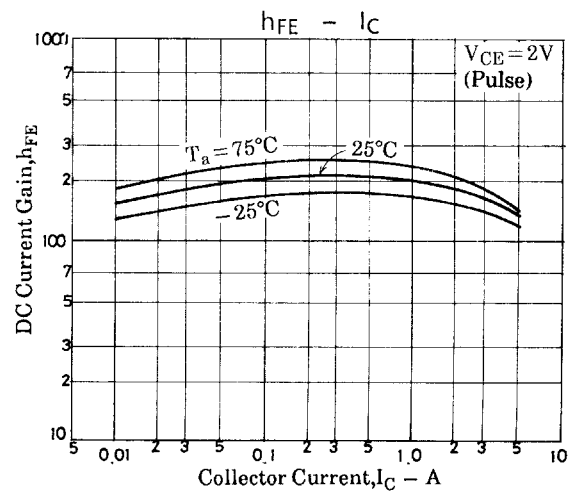
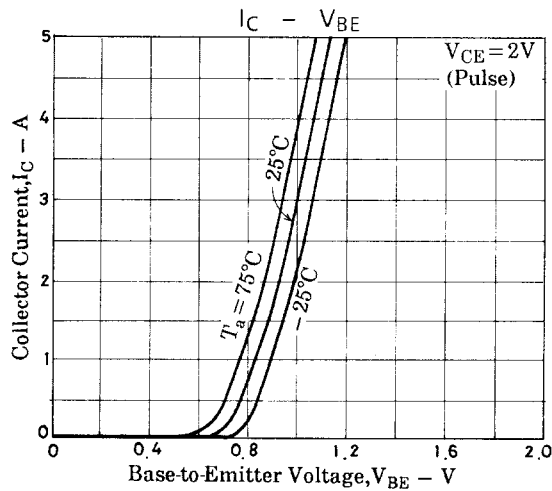
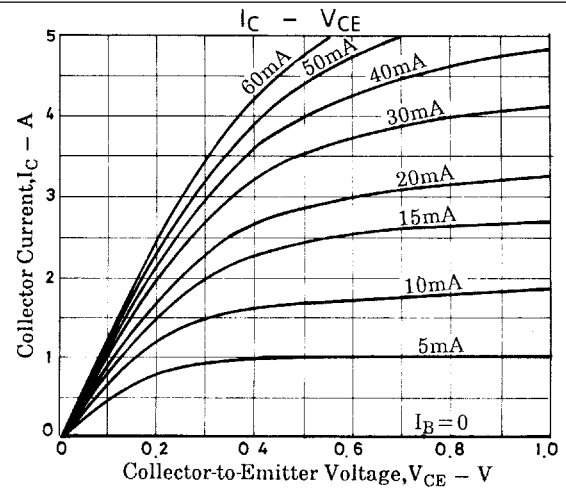
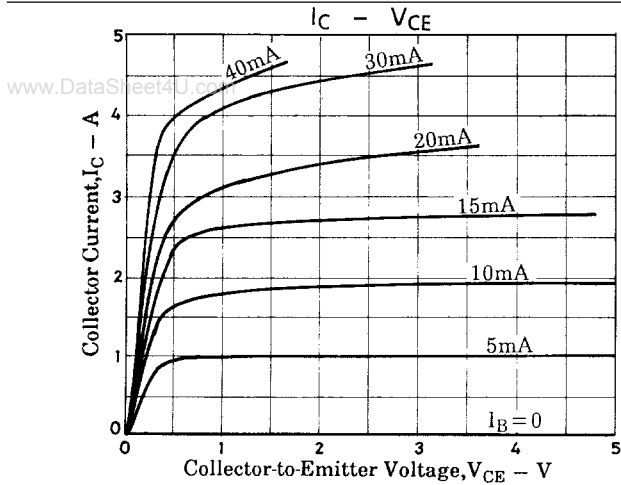
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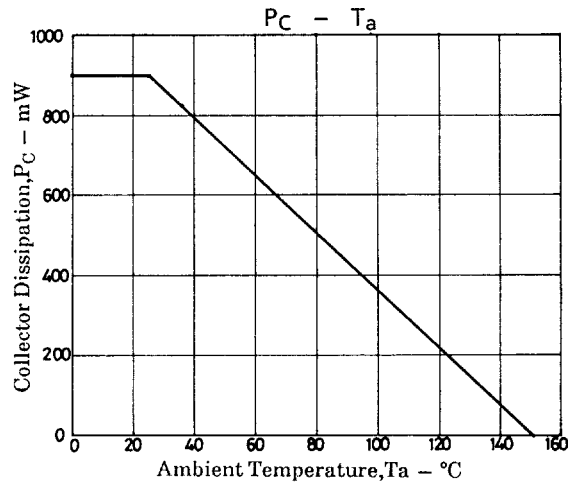
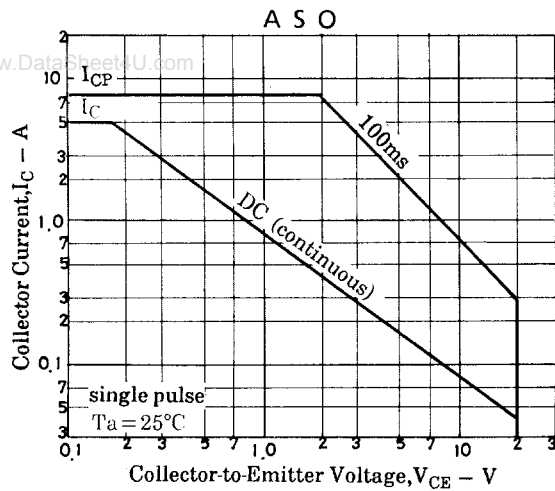
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# 2SD1145





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