

**2SC4547****85V/3A Driver Applications****Applications**

- Suitable for use in switching of L load (motor drivers, printer hammer drivers, relay drivers).

Features

- High DC current gain.
- Large current capacity and Wide ASO.
- Contains Zener diode of $95\pm 10\text{V}$ between collector and base.
- Uniformity in collector-to-base voltage due to adoption of accurate impurity diffusion process.
- High inductive load handling capability.

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		85*	V
Collector-to-Emitter Voltage	V_{CEO}		85*	V
Emitter-to-Base Voltage	V_{EBO}		6	V
Collector Current	I_C		3	A
Collector Current (Pulse)	I_{CP}		5	A
Base Current	I_B		0.5	A
Collector Dissipation	P_C		1.75	W
		$T_c=25^\circ\text{C}$	30	W
Junction Temperature	T_j		150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

* : With Zener diode of $(95\pm 10\text{V})$.**Electrical Characteristics at $T_a = 25^\circ\text{C}$**

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=70\text{V}, I_E=0$			10	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$			3	mA
DC Current Gain	h_{FE}	$V_{CE}=3\text{V}, I_C=1.5\text{A}$	2000	6000		
Gain-Bandwidth Product	f_T	$V_{CE}=5\text{V}, I_C=1.5\text{A}$		50		MHz
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=1.5\text{A}, I_B=3\text{mA}$		0.9	1.5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=1.5\text{A}, I_B=3\text{mA}$			2.0	V

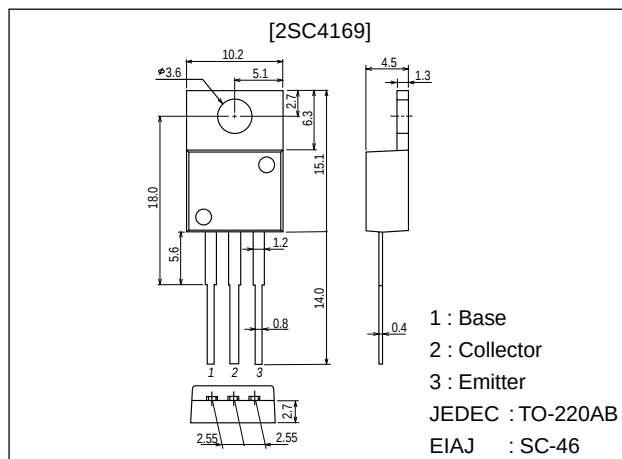
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Package Dimensions

unit:mm

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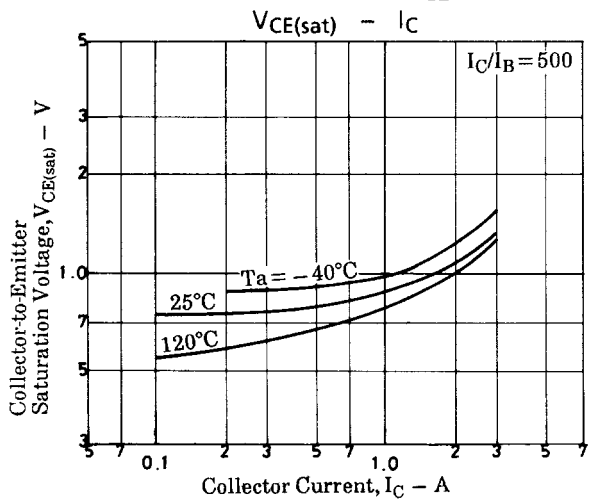
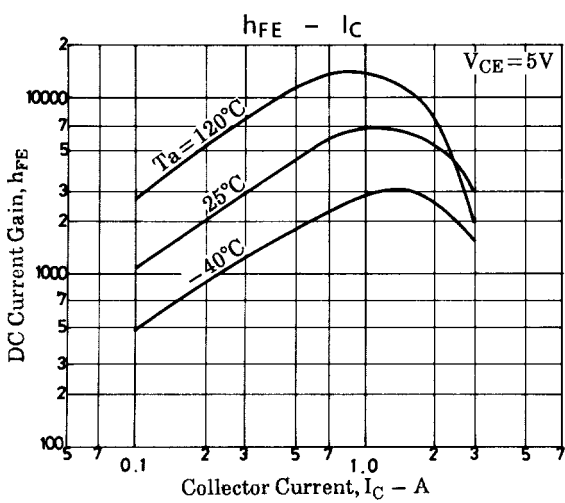
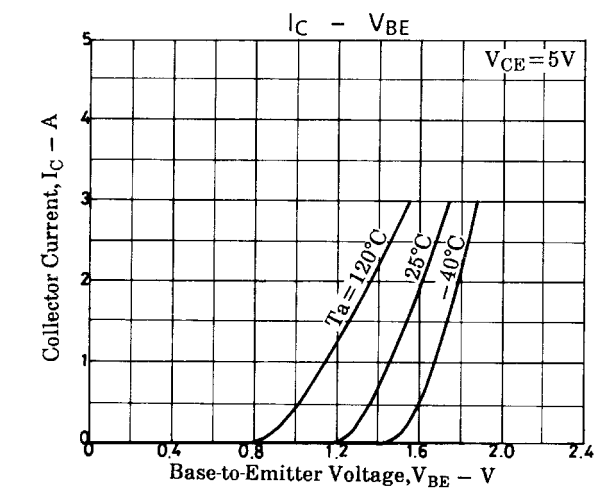
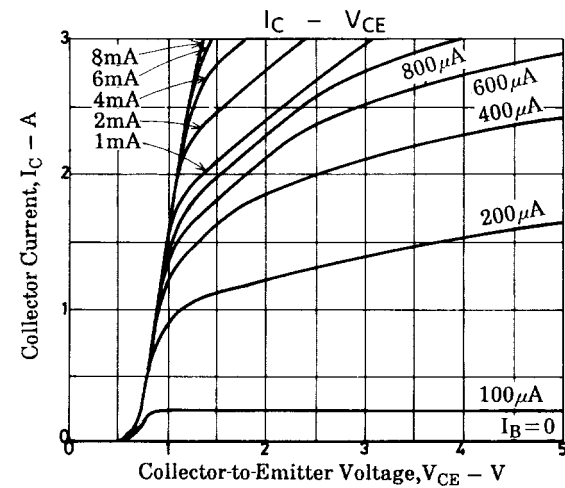
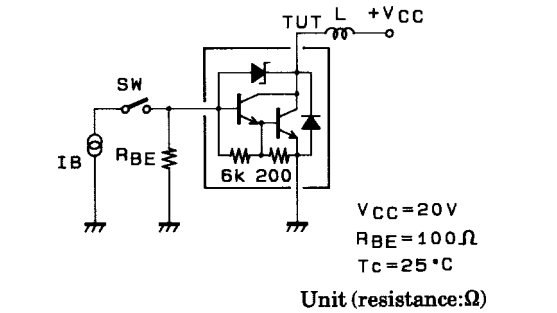
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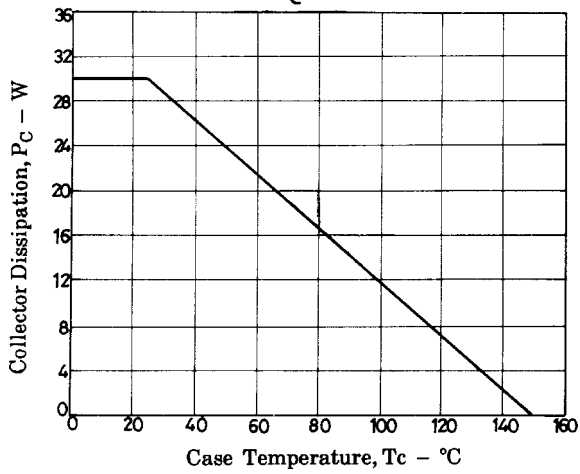
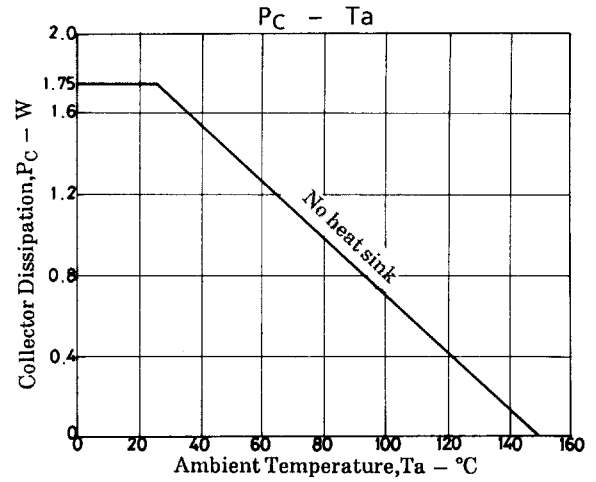
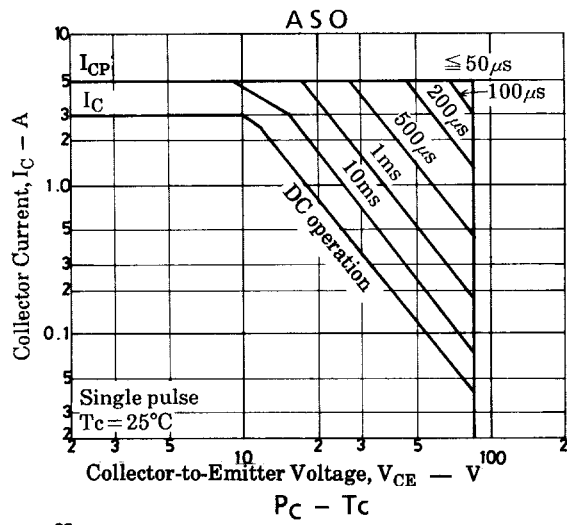
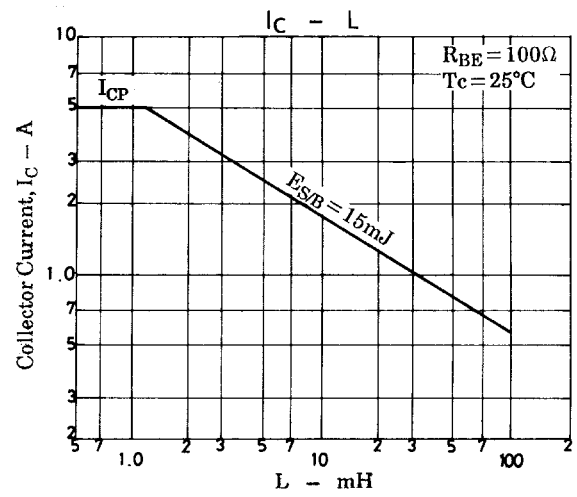
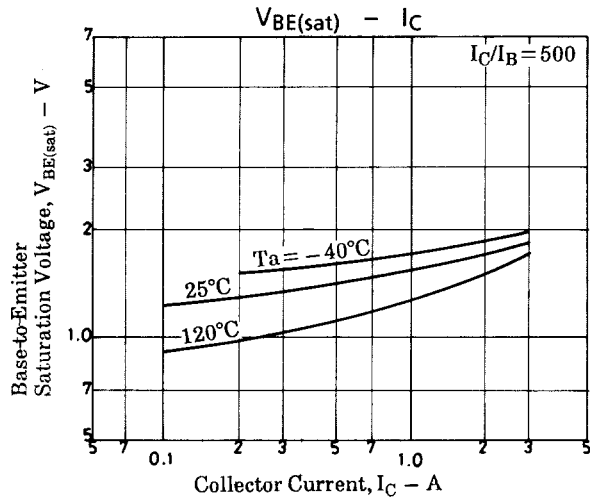
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2SC4547

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=0.1mA, I_E=0$	85	95	105	V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA, R_{BE}=\infty$	85	95	105	V
Inductive Load Voltage	Es/b	$L=100mH, R_{BE}=100\Omega$	15			mJ

Es/b Test Circuit





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