



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 $95\pm 10V$ 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 $T_a = 25^\circ C$

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CB0}		85*	V
Collector-to-Emitter Voltage	V_{CE0}		85*	V
Emitter-to-Base Voltage	V_{EB0}		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
		$T_c=25^\circ C$	30	W
Junction Temperature	T_J		150	$^\circ C$
Storage Temperature	T_{stg}		-55 to +150	$^\circ C$

* : With Zener diode of $(95\pm 10V)$.

Electrical Characteristics at $T_a = 25^\circ C$

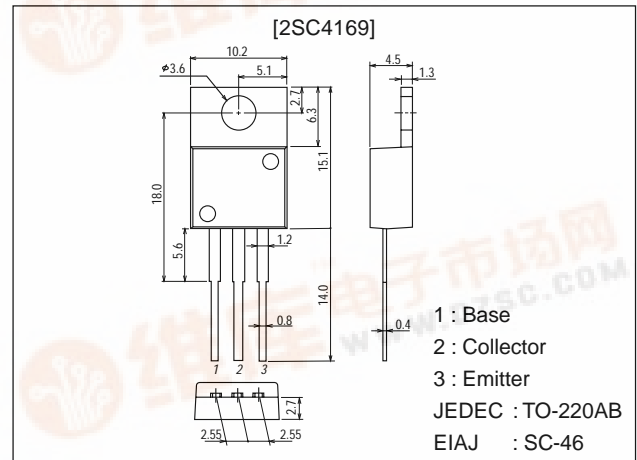
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CB0}	$V_{CB}=70V, I_E=0$			10	μA
Emitter Cutoff Current	I_{EB0}	$V_{EB}=5V, I_C=0$			3	mA
DC Current Gain	h_{FE}	$V_{CE}=3V, I_C=1.5A$	2000	6000		
Gain-Bandwidth Product	f_T	$V_{CE}=5V, I_C=1.5A$		50		MHz
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=1.5A, I_B=3mA$		0.9	1.5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=1.5A, I_B=3mA$			2.0	V

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Package Dimensions

unit:mm

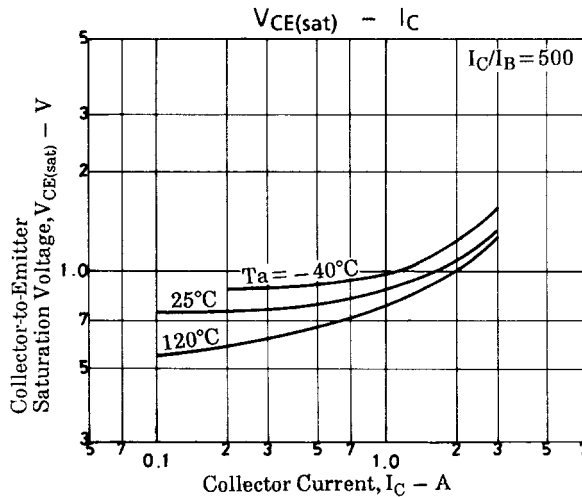
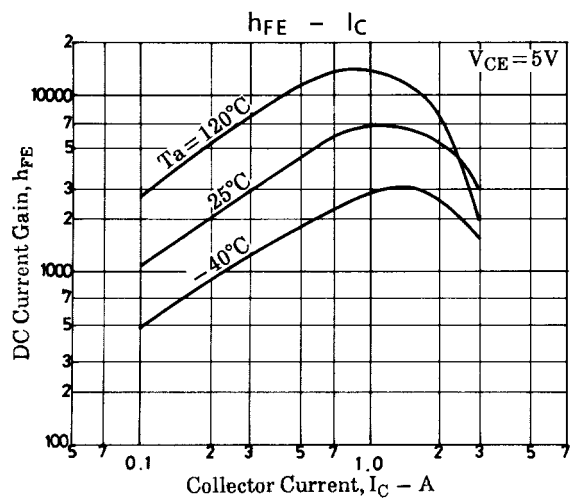
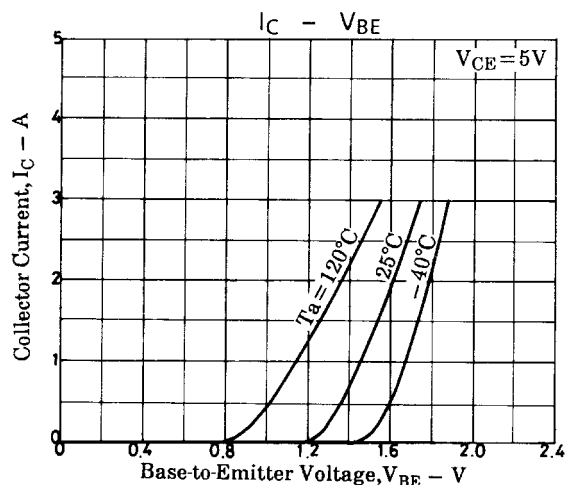
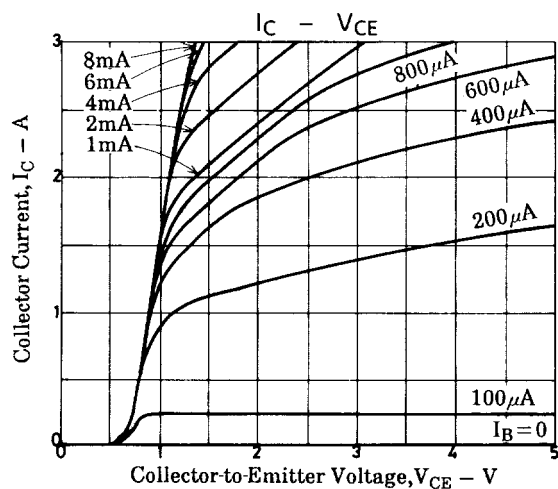
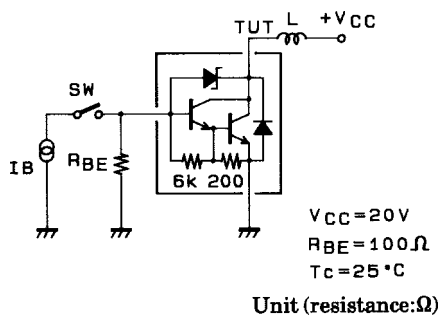
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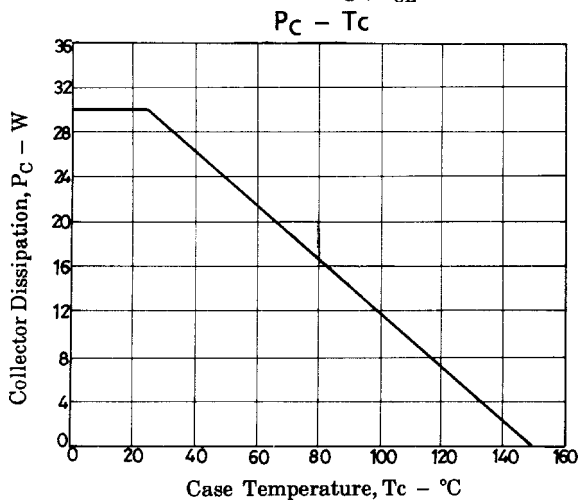
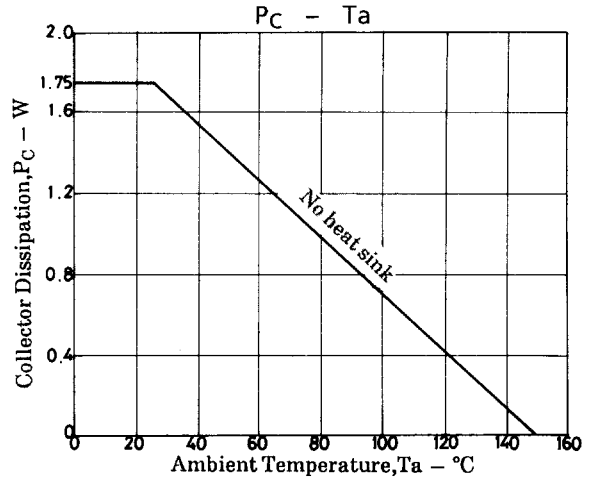
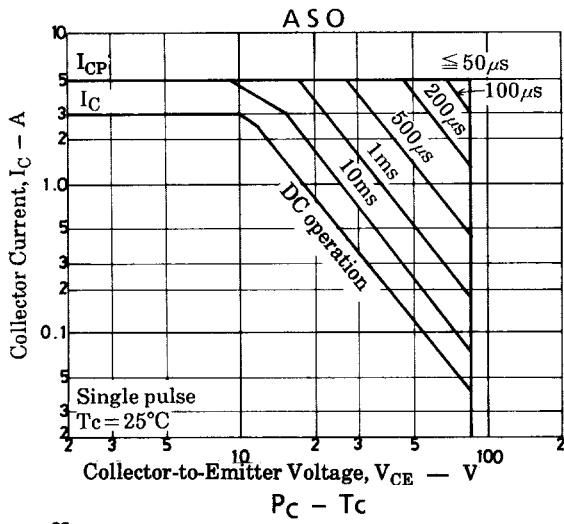
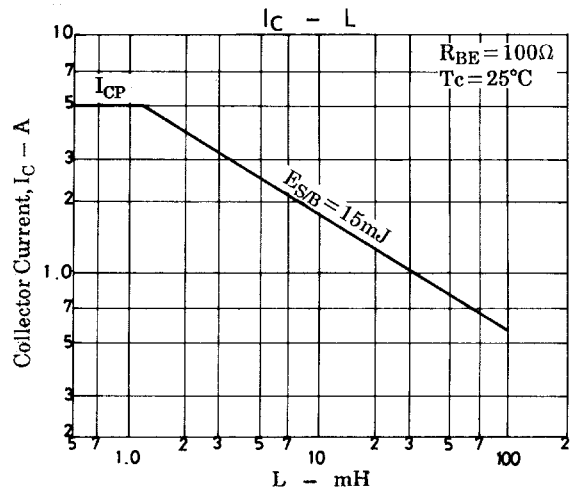
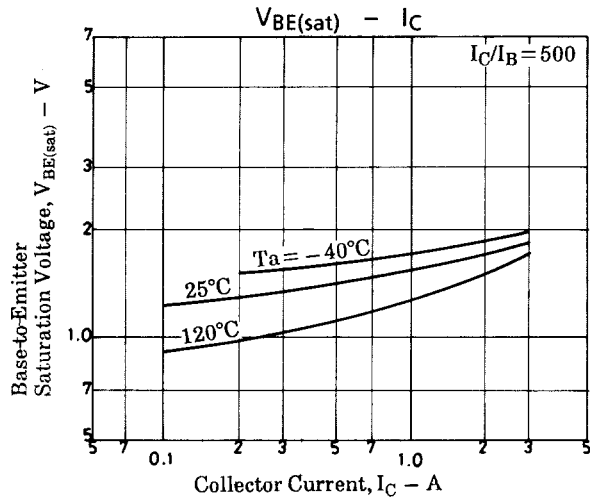
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=0.1mA, I_E=0$	85	95	105	V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA, R_{BE}=\infty$	85	95	105	V
Inductive Load Voltage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

Es/b Test Circuit



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