

Ordering number:EN6069

NPN Epitaxial Planar Silicon Darlington Transistor

**2SC5476**

**SANYO**

**85V/3A Driver Applications**

**Applications**

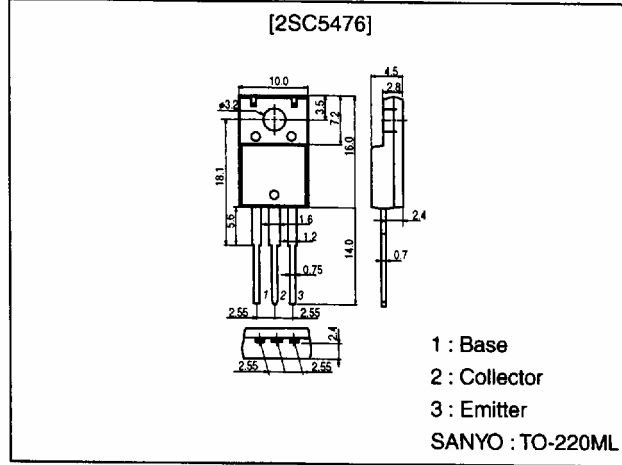
- Suitable for use in switching of L load (motor drivers, printer hammer drivers, relay drivers).

**Features**

- High DC current gain.
- Large current capacity and wide ASO.
- Contains a 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.

**Package Dimensions**

unit:mm  
2041A



**Specifications**

**Absolute Maximum Ratings** at  $T_a = 25^\circ C$

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	$P_C$		2	W
		$T_C=25^\circ C$	20	W
Junction Temperature	$T_J$		150	$^\circ C$
Storage Temperature	$T_{stg}$		-55 to +150	$^\circ C$

\* : With a 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	$I_{CBO}$	$V_{CB}=70V, I_E=0$			10	$\mu A$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=5V, I_C=0$			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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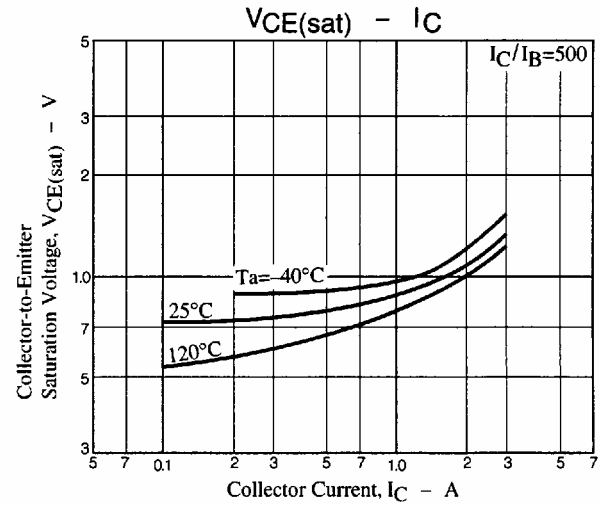
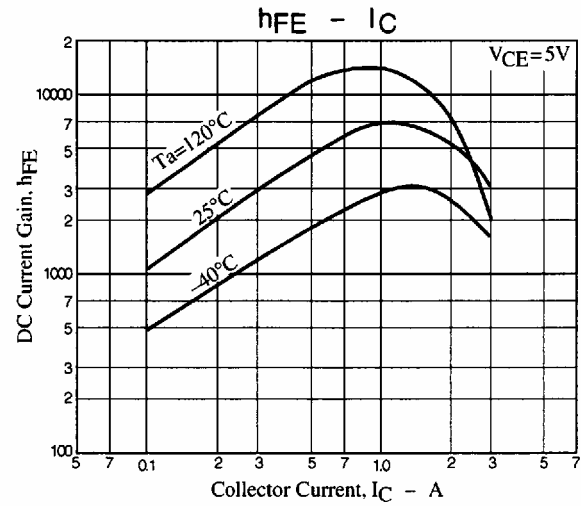
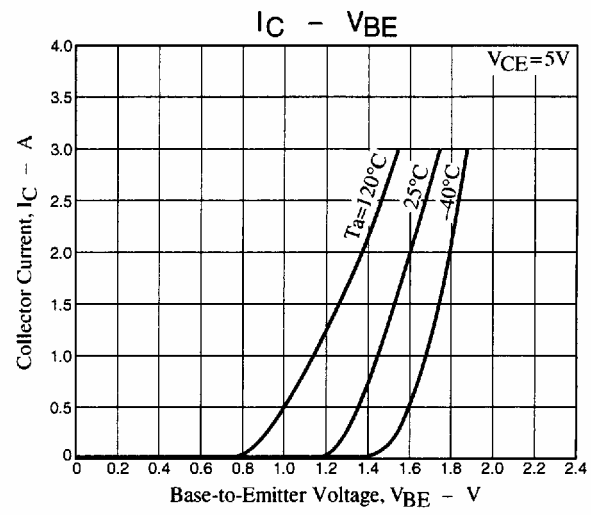
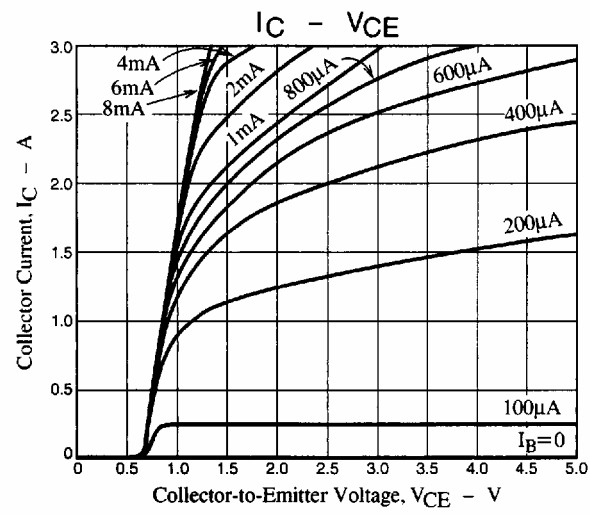
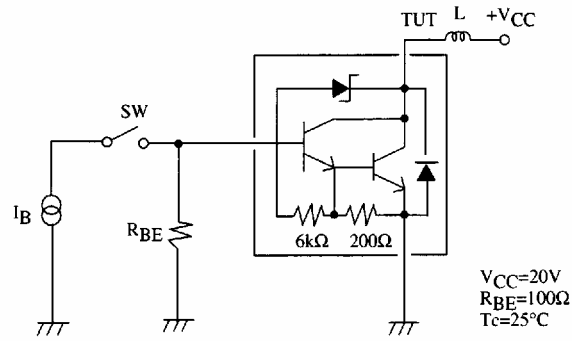


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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=0.1mA, I_E=0$	85	95	105	V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA, R_{BE}=\infty$	85	95	105	V
Inductive Load Voltage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

### Es/b Test Circuit



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