

Ordering number:EN6069

NPN Epitaxial Planar Silicon Darlington Transistor



2SC5476

85V/3A Driver Applications

Applications

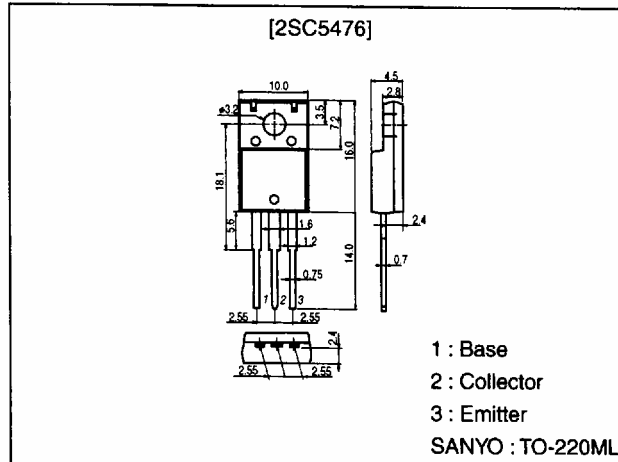
- Suitable for use in switching of L load (motor drivers, printer hammer drivers, relay drivers).

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±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	μA
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

Continued on next page.

■ Any and all SANYO products described or contained herein do not have specifications that can handle applications that require extremely high levels of reliability, such as life-support systems, aircraft's control systems, or other applications whose failure can be reasonably expected to result in serious physical and/or material damage. Consult with your SANYO representative nearest you before using any SANYO products described or contained herein in such applications.

■ SANYO assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all SANYO products described or contained herein.

SANYO Electric Co.,Ltd. Semiconductor Company
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

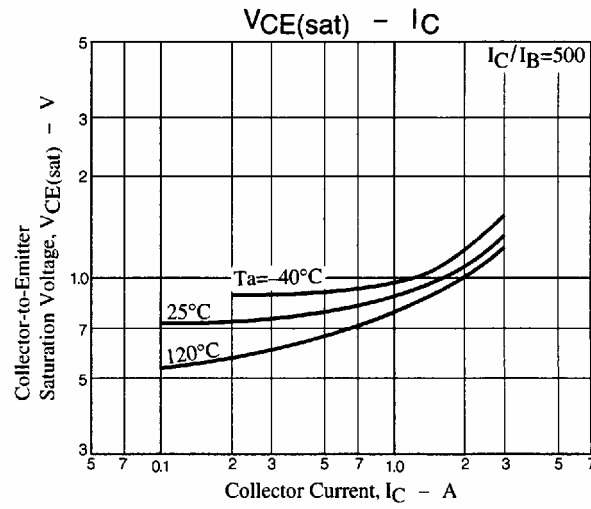
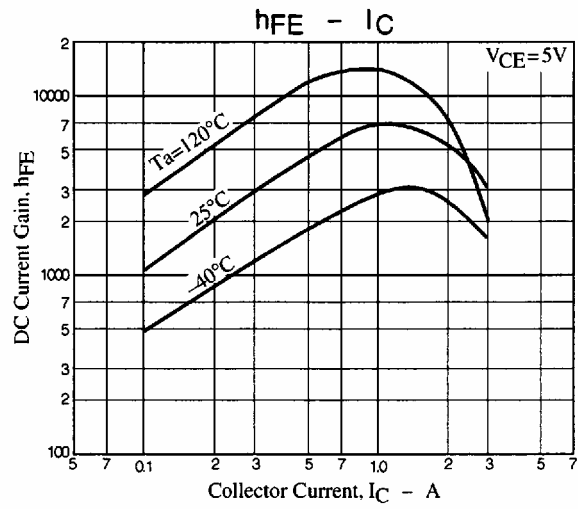
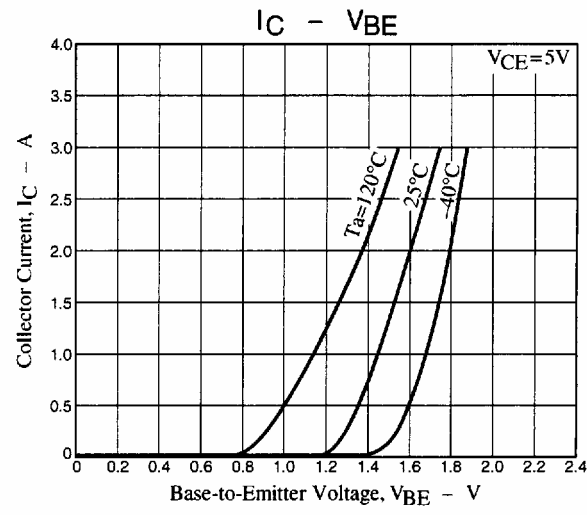
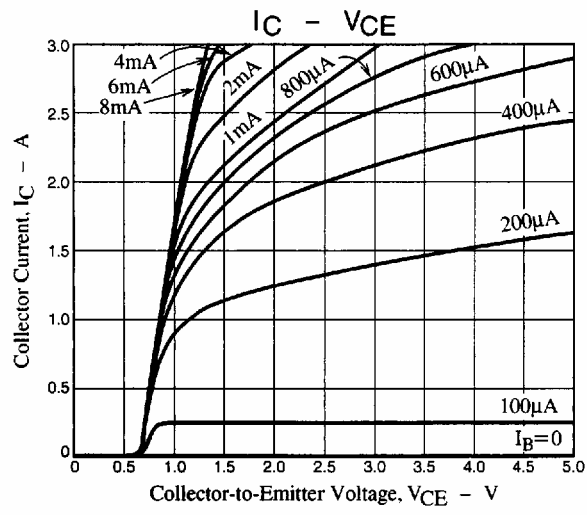
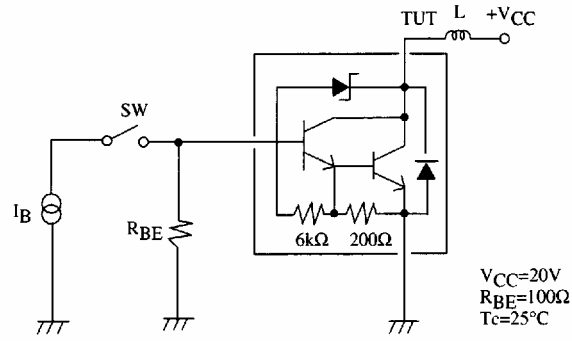
40199TS (KOTO) TA-1387 No.6069-1/4

2SC5476

Continued from preceding page.

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



2SC5476

