

	No.3580A	2SC4696
	NPN Epitaxial Planar Silicon Darlington Transistor	
Driver Applications		

Applications

- Motor drivers, printer hammer drivers.

Features

- Darlington connection.
- On-chip Zener diode of $90 \pm 10\text{V}$ between collector and base.
- High DC current gain.
- High inductive load handling capability.

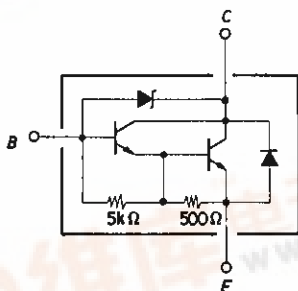
Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

				unit
Collector-to-Base Voltage	V_{CB0}	With a low-voltage diode ($90 \pm 10\text{V}$)	80	V
Collector-to-Emitter Voltage	V_{CE0}	With a low-voltage diode ($90 \pm 10\text{V}$)	80	V
Emitter-to-Base Voltage	V_{EB0}		6	V
Collector Current	I_C		0.8	A
Collector Current (Pulse)	I_{CP}		1.5	A
Base Current	I_B		0.1	A
Collector Dissipation	P_C		1.0	W
Junction Temperature	T_j		150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

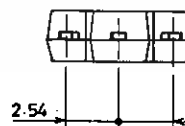
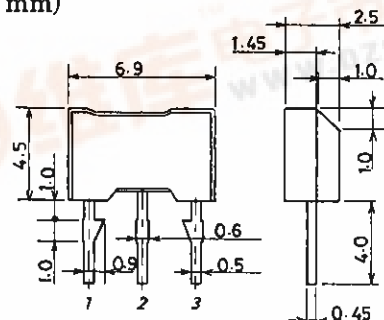
Electrical Characteristics at $T_a = 25^\circ\text{C}$

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 60\text{V}, I_E = 0$			10	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 5\text{V}, I_C = 0$			2	mA
DC Current Gain	h_{FE}	$V_{CE} = 3\text{V}, I_C = 500\text{mA}$	1000		20000	
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = 500\text{mA}, I_B = 1\text{mA}$		0.95	1.5	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = 500\text{mA}, I_B = 1\text{mA}$		1.5	2.0	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 100\mu\text{A}, I_E = 0$	80		100	V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 1\text{mA}, R_{BE} = \infty$	80		100	V
Inductive Load Handling Capability	Es/b	$L = 30\text{mH}, R_{BE} = 100\Omega$	25			mJ

Electrical Connection



Package Dimensions 2064A (unit: mm)



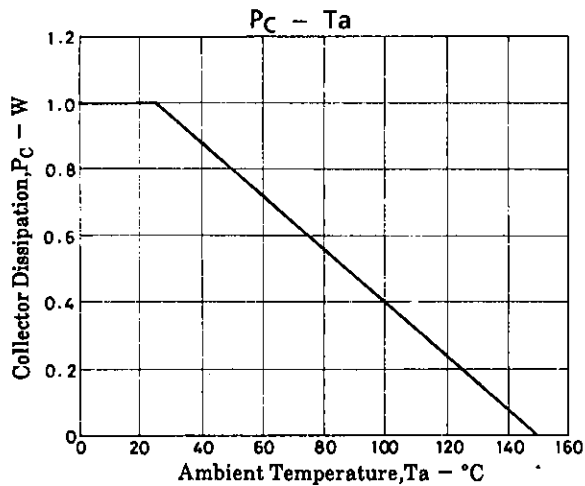
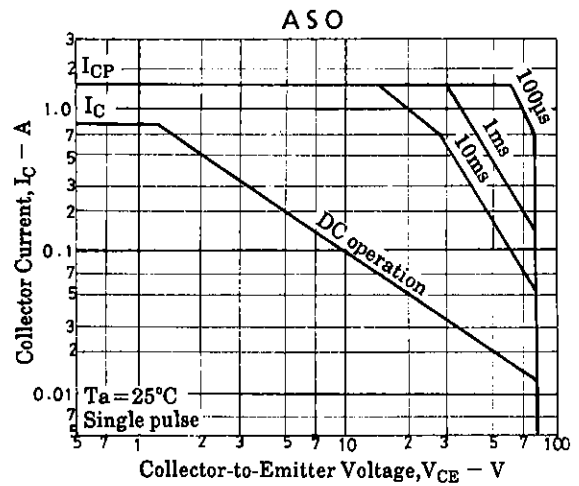
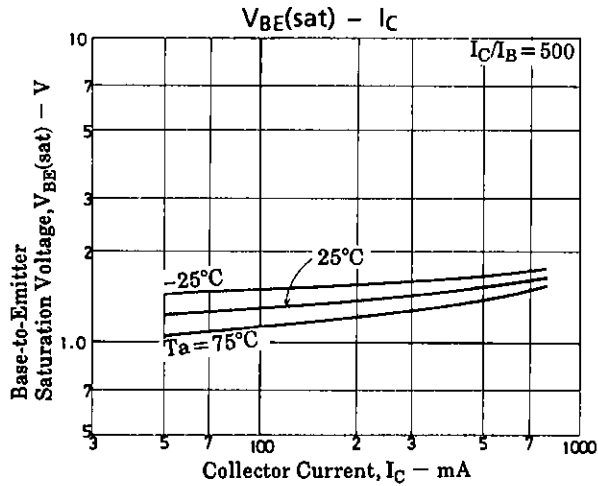
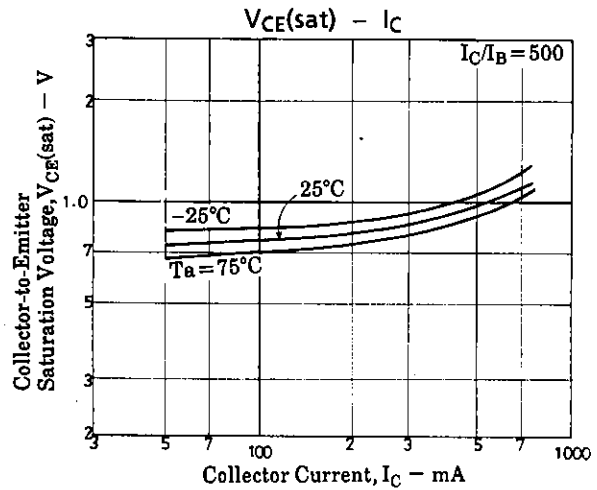
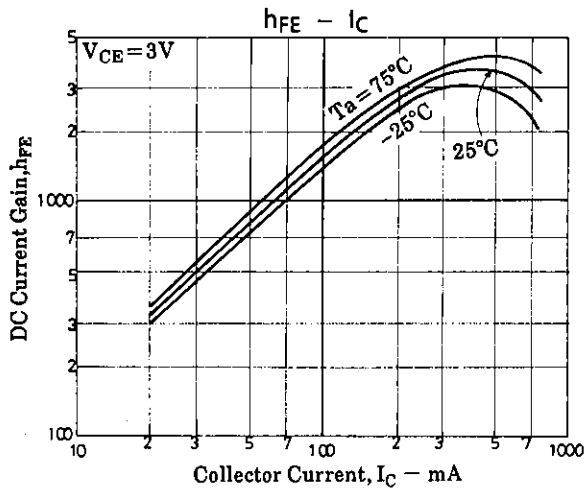
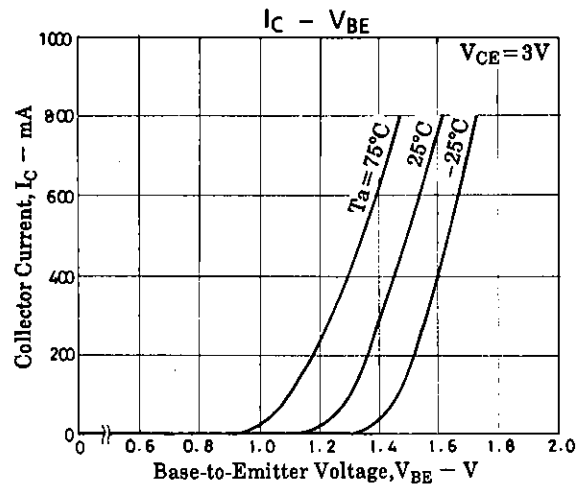
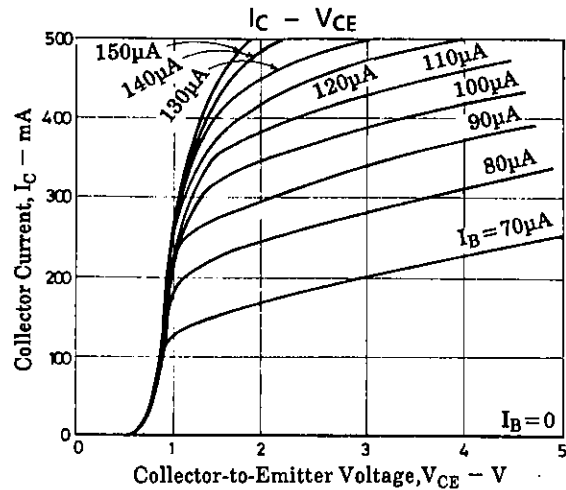
1: Emitter
2: Collector
3: Base

SANYO: NMP



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