

Silicon NPN Power Transistors

2SC5296

DESCRIPTION

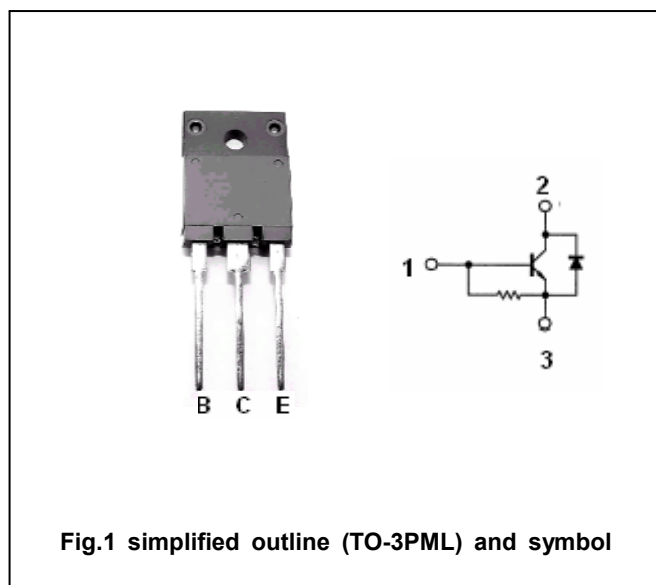
- With TO-3PML package
- High breakdown voltage, high reliability.
- High speed
- Built in damper diode

APPLICATIONS

- Ultrahigh-definition CRT display
- Horizontal deflection output applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

Absolute maximum ratings($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	1500	V
V_{CEO}	Collector-emitter voltage	Open base	800	V
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current		8	A
I_{CM}	Collector current-peak		16	A
P_C	Collector power dissipation	$T_C=25^\circ\text{C}$	60	W
			3	
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V_{CEsat}	Collector-emitter saturation voltage	$I_C=5A; I_B=1.25 A$			5	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=5A; I_B=1.25 A$			1.5	V
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	$I_C=100mA; I_B=0$	800			V
I_{EBO}	Emitter cut-off current	$V_{EB}=4V; I_C=0$	40		130	mA
I_{CBO}	Collector cut-off current	$V_{CB}=800V; I_E=0$			10	μA
I_{CES}	Collector cut-off current	$V_{CE}=1500V; R_{BE}=0$			1	mA
h_{FE-1}	DC current gain	$I_C=1 A; V_{CE}=5V$	15		25	
h_{FE-2}	DC current gain	$I_C=5A; V_{CE}=5V$	4		7	

Switching times

t_{stg}	Storage time	$I_C=4A; R_L=50\Omega$ $I_{B1}=0.8A; I_{B2}=-1.6A$ $V_{CC}=200V$			3.0	μs
t_f	Fall time			0.1	0.2	μs

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Technical drawing of a mechanical part showing three views: front, side, and top. The drawing includes detailed dimensions and annotations.

Front View (Left):

- Overall width: 16.00
- Overall height: 37.40
- Top flange width: 12.00
- Top flange thickness: 5.00
- Top flange features: 2- $\phi 3.00$, $\phi 1.20$
- Top flange chamfer: 5°
- Top flange hole positions: 2.20, 0.00, 3.00, 5.00
- Top flange hole diameters: $\phi 3.40$, 4- $\phi 1.20$ (项杆痕迹)
- Top flange hole positions: 13.50, 15.00, 17.00
- Top flange hole diameters: 3- $\phi 1.20$ (项杆痕迹)
- Top flange hole positions: 21.00, 37.10
- Top flange hole diameters: 15°

Side View (Middle):

- Overall height: 5.60
- Overall width: 3.30
- Overall thickness: 2.10
- Side flange thickness: 5.00
- Side flange chamfer: 5°
- Side flange hole positions: 2.20, 0.00, 1.00
- Side flange hole diameters: $\phi 3.40$, 4- $\phi 1.20$ (项杆痕迹)
- Side flange hole positions: 13.00, 17.00
- Side flange hole diameters: 3- $\phi 1.20$ (项杆痕迹)
- Side flange hole positions: 21.00, 37.10
- Side flange hole diameters: 15°

Top View (Right):

- Overall width: 12.00
- Overall height: 13.00
- Top flange width: 12.00
- Top flange thickness: 5.00
- Top flange features: 2- $\phi 3.00$, $\phi 1.20$
- Top flange chamfer: 5°
- Top flange hole positions: 2.20, 0.00, 1.00
- Top flange hole diameters: $\phi 3.40$, 4- $\phi 1.20$ (项杆痕迹)
- Top flange hole positions: 13.00, 17.00
- Top flange hole diameters: 3- $\phi 1.20$ (项杆痕迹)
- Top flange hole positions: 21.00, 37.10
- Top flange hole diameters: 15°

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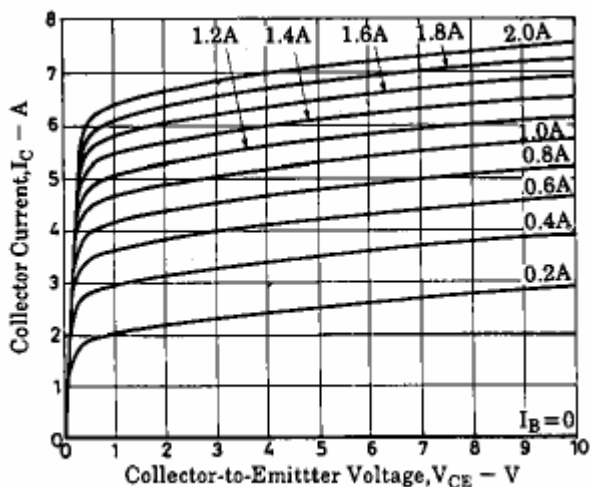


Fig.3 Static Characteristic

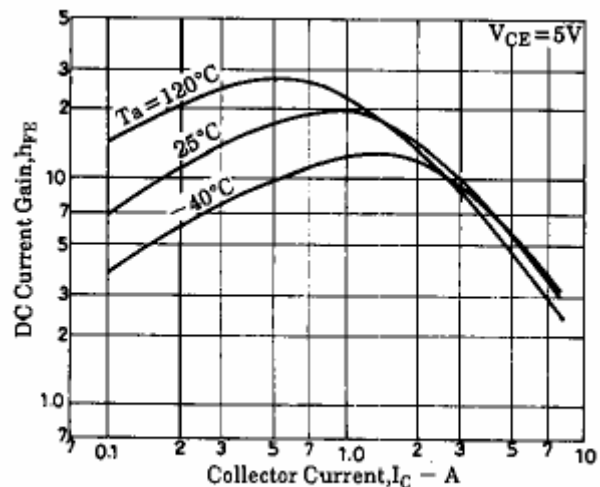


Fig.4 DC current Gain

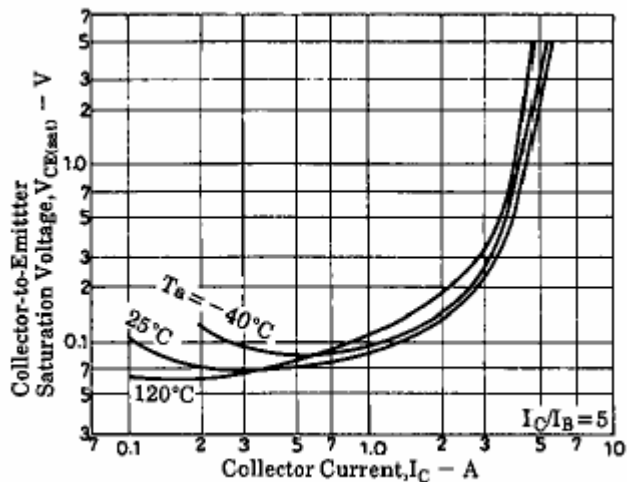


Fig.5 Collector-Emitter Saturation Voltage

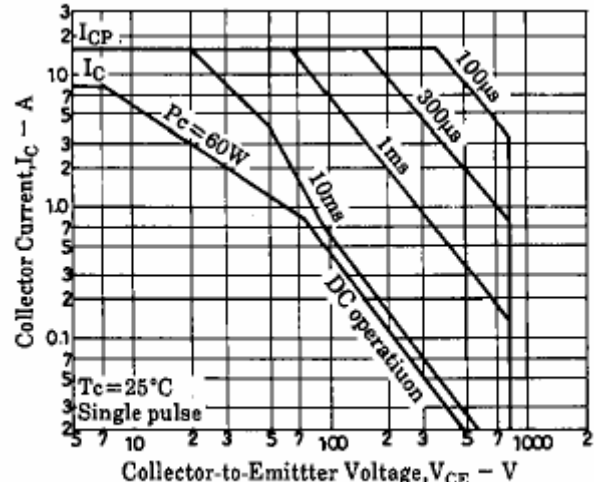


Fig.6 Safe Operating Area