

Ordering number: EN 590B

	No.590B	2SD894
	NPN Epitaxial Planar Silicon Transistor General Driver Applications	

Use

- Motor drive, printer hummer drive, relay drive, voltage regulator controller.

Features

- High DC Current Gain (not less than 4000).
- Wide ASO.
- Low saturation voltage (1.5V max.).
- Large power rating ($P_C=10W$).

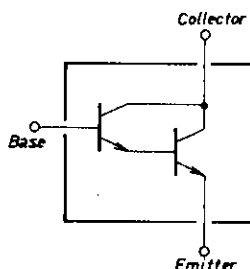
Absolute Maximum Ratings at $T_a=25^\circ C$

			unit
Collector-to-Base Voltage	V_{CB0}	30	V
Collector-to-Emitter Voltage	V_{CE0}	25	V
Emitter-to-Base Voltage	V_{EB0}	10	V
Collector Current	I_C	1.5	A
Peak Collector Current	i_{cp}	2.5	A
Collector Dissipation	P_C	1	W
		10	W
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature	T_{stg}	-55 to +150	$^\circ C$

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

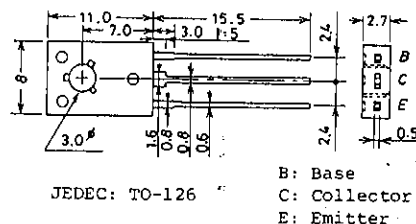
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB}=20V, I_E=0$			1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=8V, I_C=0$			1	μA
DC Current Gain	$h_{FE}(1)$	$V_{CE}=2V, I_C=500mA$	4000			
	$h_{FE}(2)$	$V_{CE}=2V, I_C=10mA$	3000			
Gain-Bandwidth Product	f_T	$V_{CE}=10V, I_C=50mA$		120		MHz
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=600mA, I_B=0.15mA$			1.5	V
B-E Saturation voltage	$V_{BE(sat)}$	$I_C=600mA, I_B=0.15mA$			2.0	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	30			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA, R_{BE}=\infty$	25			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	10			V

Equivalent Circuit



Package Dimensions 2009A

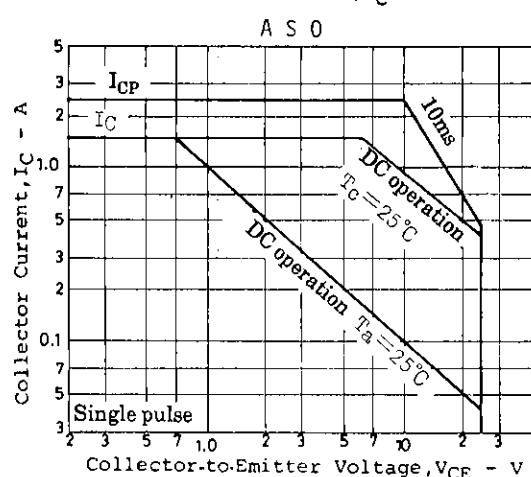
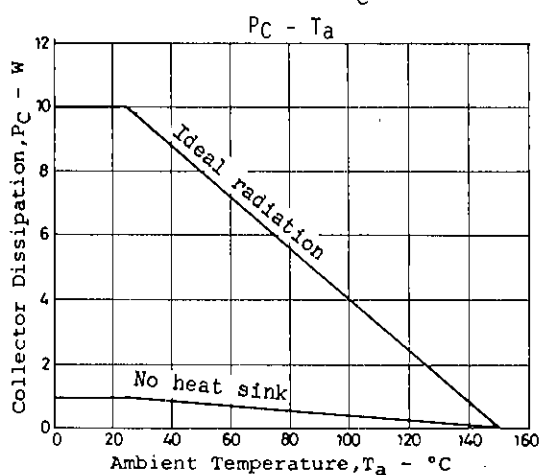
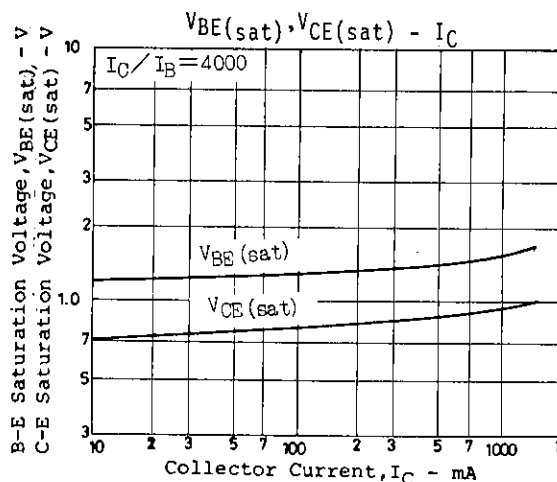
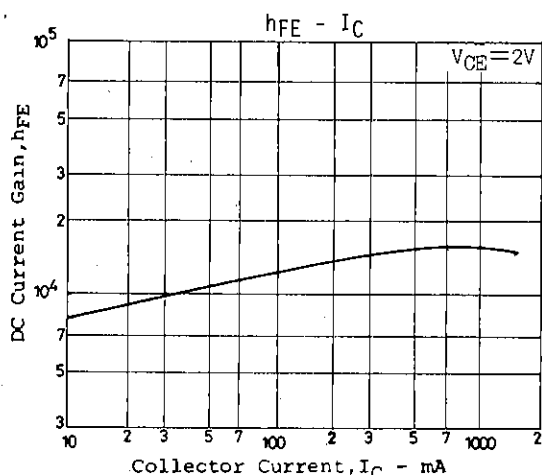
(unit:mm)


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5257KI/6082KI, TS No.590-1/2

2SD894



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