



PNP SILICON DARLINGTON POWER TRANSISTORS

2SB794, 2SB795

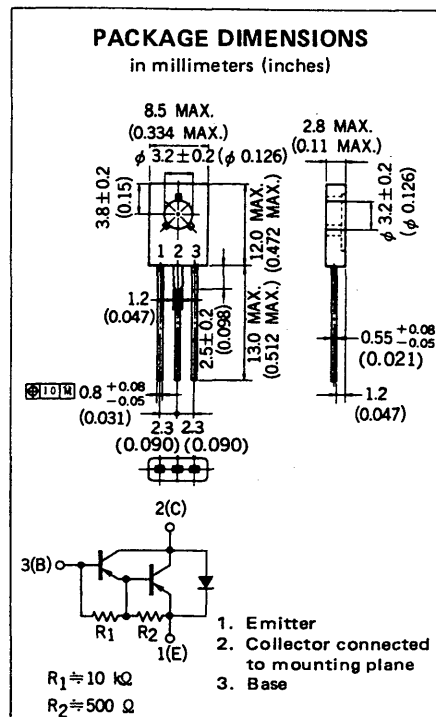
DESCRIPTION The 2SB794, 2SB795 are darlington transistors built-in dumper diodes at C-E. They are suitable for use operating from IC without predriver, such as hammer driver.

- FEATURES**
- High DC Current Gain.
 - Low Collector Saturation Voltage.
 - Built-in a dumper diode at C-E.
 - Complementary to the NEC 2SD985, 2SD986 NPN Transistors.

ABSOLUTE MAXIMUM RATINGS

Maximum Temperatures	
Storage Temperature	-55 to +150 °C
Junction Temperature	+150 °C Maximum
Maximum Power Dissipations	
Total Power Dissipation (T _a = 25 °C)	1.0 W
Total Power Dissipation (T _c = 25 °C)	10 W
Maximum Voltages and Currents (T _a = 25 °C)	
	2SB794 2SB795
V _{CB0} Collector to Base Voltage	-60 -80 V
V _{CEO} Collector to Emitter Voltage	-60 -80 V
V _{EBO} Emitter to Base Voltage	-8.0 V
I _{C(DC)} Collector Current	±1.5 A
I _{C(pulse)*} Collector Current	±3.0 A

* PW ≤ 10 ms, Duty Cycle ≤ 50 %



ELECTRICAL CHARACTERISTICS (T_a = 25 °C)

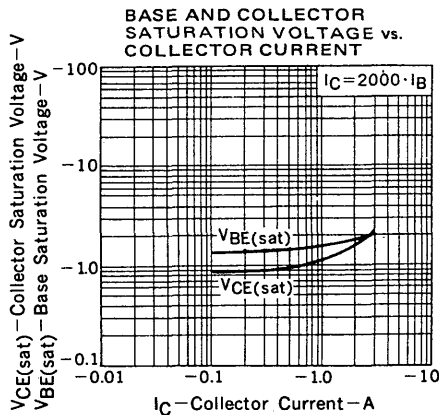
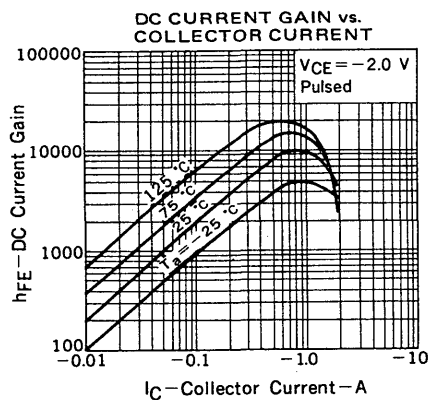
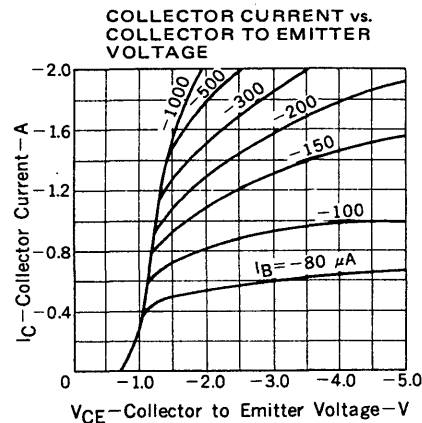
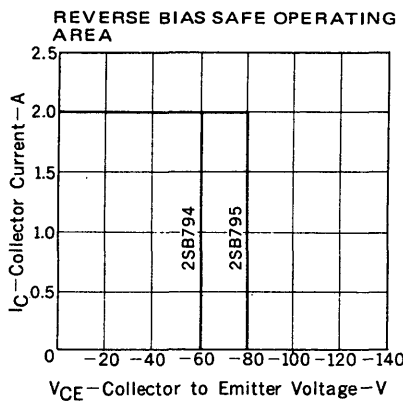
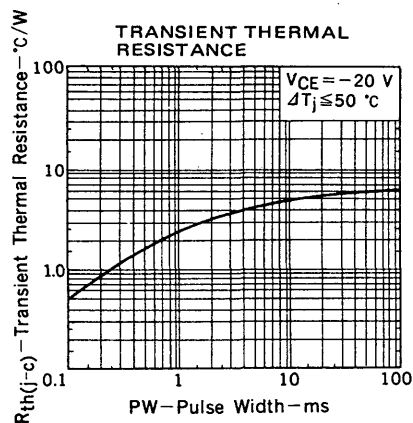
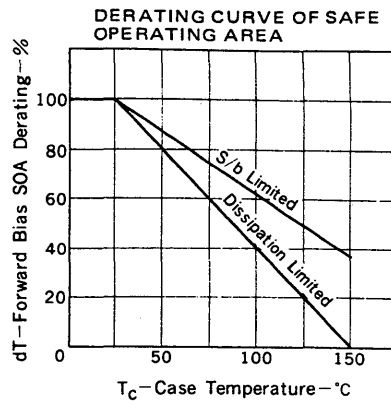
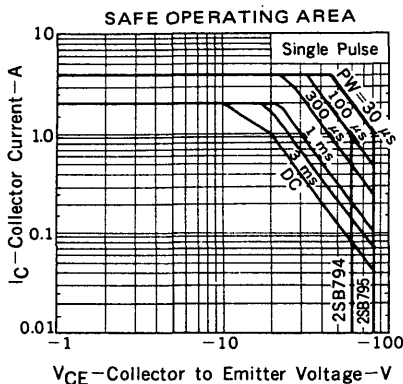
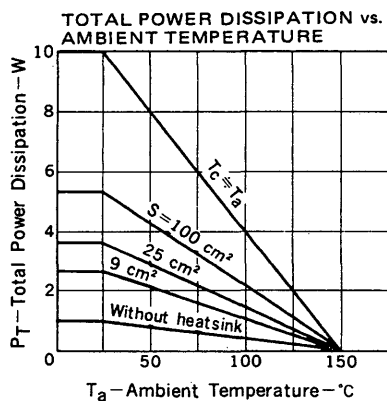
SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
h _{FE1}	DC Current Gain	1000			-	V _{CE} = -2.0 V, I _C = -0.5 A
h _{FE2}	DC Current Gain	2000		30000	-	V _{CE} = -2.0 V, I _C = -1.0 A
t _{on}	Turn On Time		0.5		μs	I _C = -1.0 A, R _L = 50 Ω I _{B1} = -I _{B2} = -1.0 mA, V _{CC} = -50 V See Test Circuit.
t _{stg}	Storage Time		1.0		μs	
t _f	Fall Time		1.0		μs	
I _{CB0}	Collector Cutoff Current			-1.0	μA	V _{CB} = -60/-80 V, I _E = 0
I _{EBO}	Emitter Cutoff Current			-1.0	mA	V _{EB} = -5.0 V, I _C = 0
V _{CE(sat)}	Collector Saturation Voltage			-15	V	I _C = -1.0 A, I _B = -1.0 mA
V _{BE(sat)}	Base Saturation Voltage			-2.0	V	I _C = -1.0 A, I _B = -1.0 mA

Classification of h_{FE1}

Rank	M	L	K
Range	2000 to 5000	4000 to 10000	8000 to 30000

Test Conditions: V_{CE} = -2.0 V, I_C = -1.0 A

TYPICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)



2SB794,2SB795

NEC

SWITCHING TIME (t_{on} , t_{stg} , t_f) TEST CIRCUIT

