

Silicon NPN Power Transistors

2SD985 2SD986

DESCRIPTION

- With TO-126 package
- Complement to type 2SB794/795
- DARLINGTON
- High DC current gain
- Low collector saturation voltage

APPLICATIONS

- For low frequency power amplifier and power switching applications

PINNING

PIN	DESCRIPTION
1	Emitter
2	Collector;connected to mounting base
3	Base

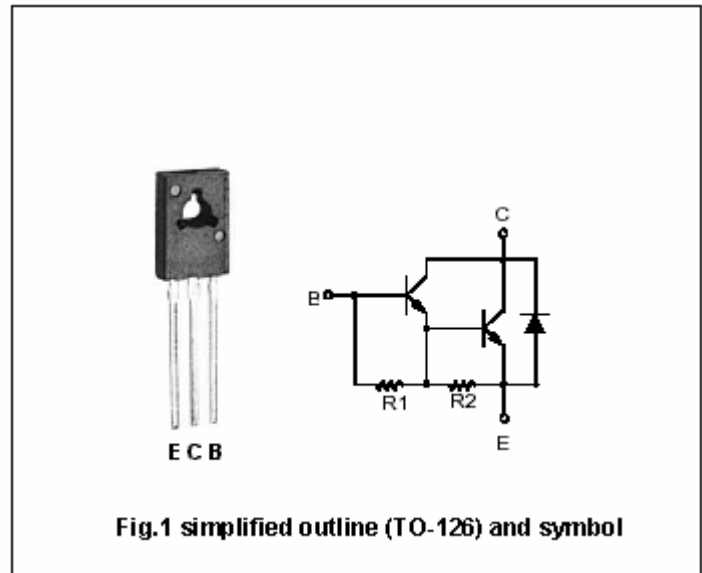


Fig.1 simplified outline (TO-126) and symbol

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	150	V
V_{CEO}	Collector-emitter voltage	2SD985	60	V
		2SD986	80	
V_{EBO}	Emitter -base voltage	Open collector	8	V
I_C	Collector current		± 1.5	A
I_{CM}	Collector current-Peak		± 3.0	A
I_B	Base current		0.15	A
P_T	Total power dissipation	$T_a=25^\circ\text{C}$	1.0	W
		$T_C=25^\circ\text{C}$	10	
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEsat}	Collector-emitter saturation voltage	I _C =1.0A; I _B =1.0mA			1.5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =1.0A; I _B =1.0mA			2.0	V
I _{CBO}	Collector cut-off current	2SD985 V _{CB} =60V; I _E =0			10	μA
		2SD986 V _{CB} =80V; I _E =0				
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			2.0	mA
h _{FE-1}	DC current gain	I _C =0.5A; V _{CE} =2V	1000			
h _{FE-2}	DC current gain	I _C =1.0A; V _{CE} =2V	2000		30000	

Switching times

t _{on}	Turn-on time	I _C =1.0A; I _{B1} =-I _{B2} =1.0mA V _{CC} =50V; R _L =50Ω		0.5		μs
t _s	Storage time			1.0		μs
t _f	Fall time			1.0		μs

◆ h_{FE-2} Classifications

M	L	K
2000-5000	4000-10000	8000-30000

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PACKAGE OUTLINE

