



TR BD683;ST;TO126;Tranzystor NPN;Darlington;5A;120V;40W;1MHz;



Dane techniczne:

Nazwa: BD683

Układ Darlingtona

Typ tranzystora: bipolarny

Kierunek przewodnictwa: NPN

Prąd kolektora: 5A

Napięcie kolektor-emiter: 120V

Moc: 40W

Częstotliwość: 1MHz

Montaż: przewlekany(THT)

Obudowa: TO126

Producent: ST

Silicon NPN Power Transistors

BD683

DESCRIPTION

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- With TO-126 package
- Complement to type BD684
- DARLINGTON

APPLICATIONS

- For audio and video applications

PINNING

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

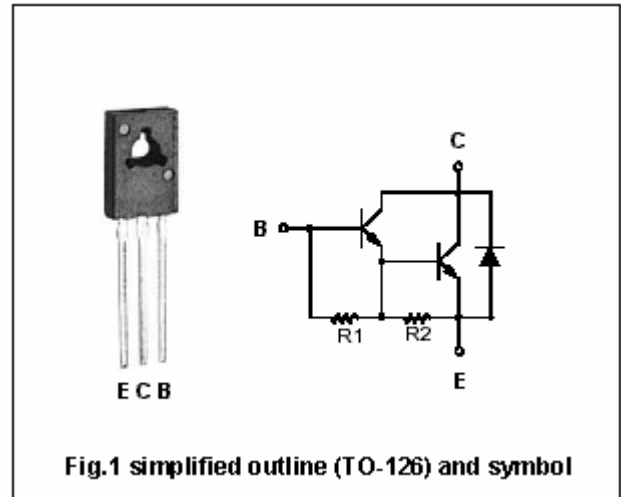


Fig.1 simplified outline (TO-126) and symbol

Absolute maximum ratings (Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	140	V
V_{CEO}	Collector-emitter voltage	Open base	120	V
V_{EBO}	Emitter -base voltage	Open collector	5	V
I_C	Collector current (DC)		4	A
I_{CM}	Collector current-Peak		6	A
I_{BM}	Base current-Peak		0.1	A
P_T	Total power dissipation	$T_C=25^\circ\text{C}$	40	W
T_j	Junction temperature		150	°C
T_{stg}	Storage temperature		-65~150	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-mb}$	Thermal resistance, junction to mounting base	3.12	K/W

Silicon NPN Power Transistors

BD683

CHARACTERISTICS

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 $T_j=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V_{CEsat}	Collector-emitter saturation voltage	$I_C=1.5\text{A}; I_B=6\text{mA}$			2.5	V
V_{BE}	Base-emitter on voltage	$I_C=1.5\text{A}; V_{CE}=3\text{V}$			2.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=120\text{V}; I_E=0$			0.2	mA
I_{CEO}	Collector cut-off current	$V_{CE}=60\text{V}; I_B=0$			0.2	mA
I_{EBO}	Emitter cut-off current	$V_{EB}=5\text{V}; I_C=0$			5	mA
h_{FE-1}	DC current gain	$I_C=500\text{mA}; V_{CE}=3\text{V}$		2200		
h_{FE-2}	DC current gain	$I_C=1.5\text{A}; V_{CE}=3\text{V}$	750			
h_{FE-3}	DC current gain	$I_C=4\text{A}; V_{CE}=3\text{V}$		1500		
t_{on}	Turn-on time	$I_C=1.5\text{A}; I_{B1}=-I_{B2}=6\text{mA}$ $V_{CC}=30\text{V}$		0.8	2	μs
t_{off}	Turn-off time			4.5	8	μs

PACKAGE OUTLINE

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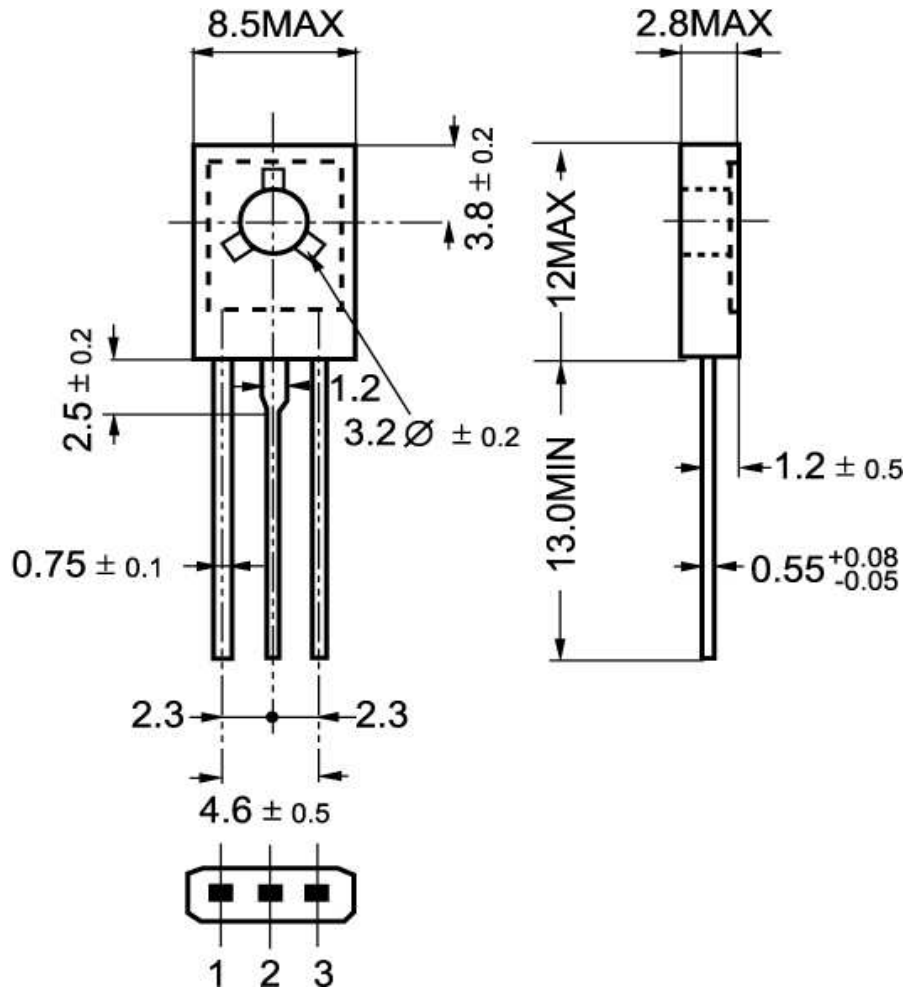


Fig.2 Outline dimensions