Silicon NPN Darligton Power Transistors BD675/BD677/BD679

DESCRIPTION

·With TO-126 package
·Complement to type BD676/678/680
·DARLINGTON
·High DC current gain

APPLICATIONS

·For use as output devices in complementary general–purpose amplifier applications

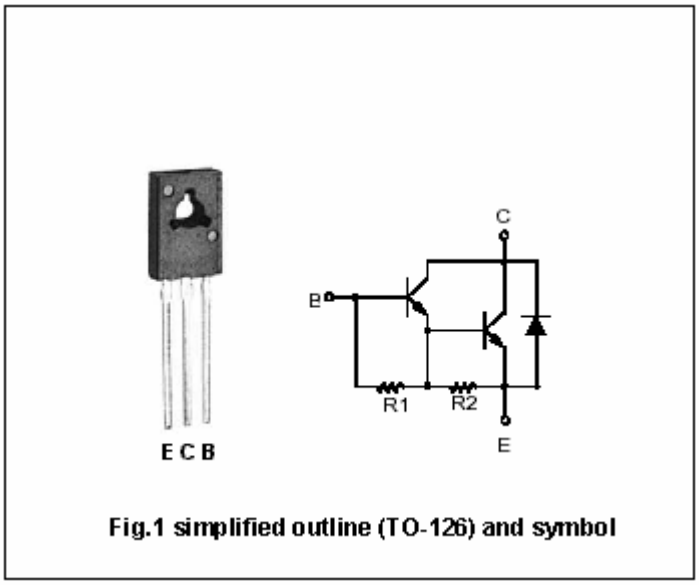

Fig.1 simplified outline (TO-126) and symbol

PINNING

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

Absolute maximum ratings (Ta=25□)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	BD675	Open emitter	45	V
		BD677		60	
		BD679		80	
V_{CEO}	Collector-emitter voltage	BD675	Open base	45	V
		BD677		60	
		BD679		80	
V_{EBO}	Emitter -base voltage		Open collector	5	V
I_C	Collector current			4	A
I_{CM}	Collector current-Peak			7	A
I_B	Base current			0.1	A
P_C	Collector power dissipation		T_C=25□	40	W
T_j	Junction temperature			150	□
T_{stg}	Storage temperature			-55~150	□

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j\text{-}a}$	Thermal resistance from junction to ambient	100	K/W
$R_{th\ j\text{-}mb}$	Thermal resistance from junction to mounting base	3.12	K/W

CHARACTERISTICS

Tj=25□ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	BD675	I_C=100mA; I_B=0	45			V
		BD677		60			
		BD679		80			
$V_{(BR)CBO}$	Collector-base breakdown voltage	BD675	I_C=1mA; I_E=0	45			V
		BD677		60			
		BD679		80			
$V_{(BR)EBO}$	Emitter-base breakdown voltage		I_E=5mA; I_C=0	5			V
V_{CEsat}	Collector-emitter saturation voltage		I_C=1.5A; I_B=30mA			2.5	V
$V_{BE(on)}$	Base-emitter on voltage		I_C=1.5A ; V_{CE}=3V			2.5	V
I_{CBO}	Collector cut-off current		V_{CB}=rated BV_{CBO}; I_E=0 T_a=100 □			0.2 2.0	mA
I_{CEO}	Collector cut-off current		V_{CE}=1/2rated BV_{CEO}; I_B=0			0.5	mA
I_{EBO}	Emitter cut-off current		V_{EB}=5V; I_C=0			5.0	mA
h_{FE}	DC current gain		I_C=1.5A ; V_{CE}=3V	750			

PACKAGE OUTLINE

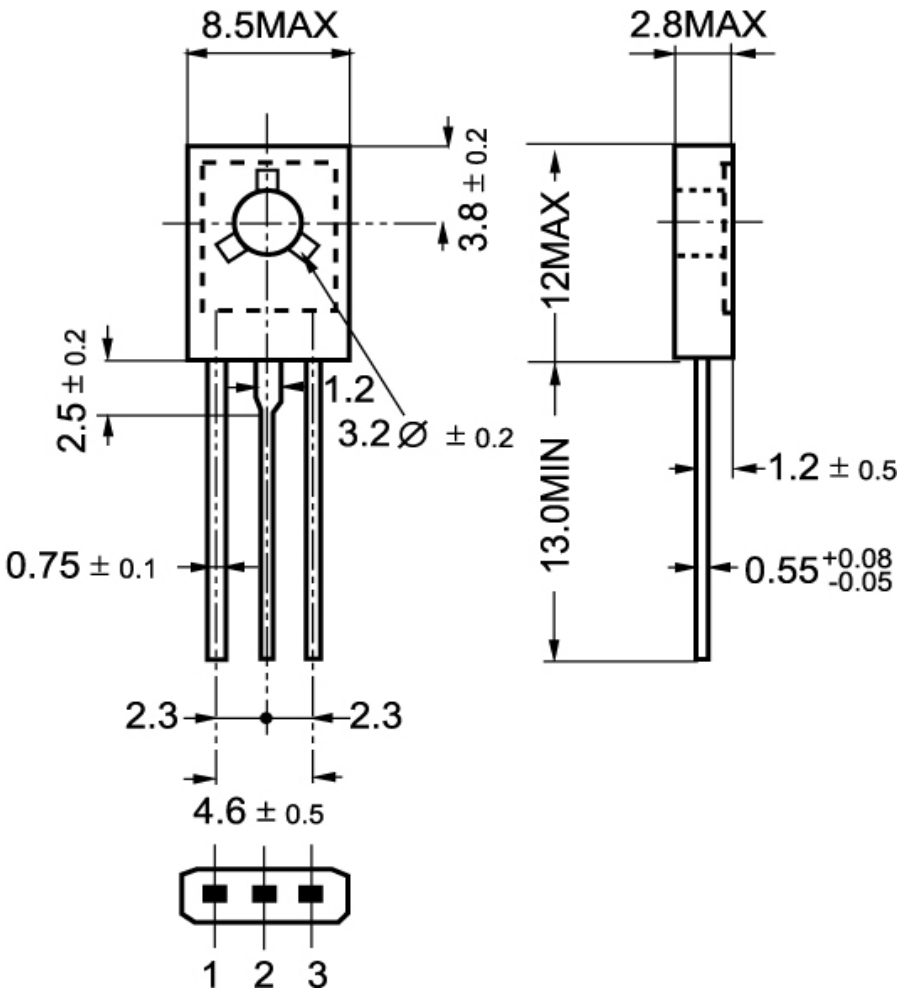

Fig.2 Outline dimensions