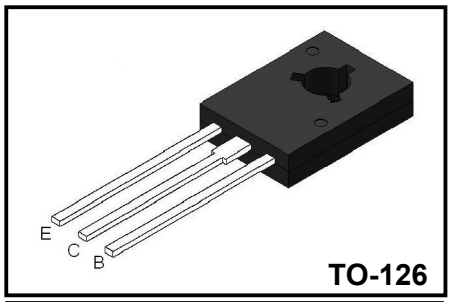
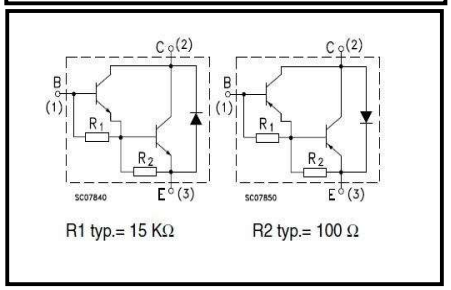
Plastic-EncapsulateDarlingtonTransistors



TO-126



R1 typ.= 15 KΩ R2 typ.= 100 Ω

APPLICATION

- Linear and switching industrial equipment.

DESCRIPTION

The BD675,BD675A,BD677, BD677A, BD679, BD679A and BD681 are silicon epitaxial-base NPN power transistors in monolithic Darlington configuration mounted in TO-126 plastic package. They are intended for use in medium power linarand switching applications.
The complementary PNP types are BD676,BD676A,BD678,BD678A, BD680, BD680A and BD682 respectively.

Absolute Maximum Ratings (Ta=25℃)

Symbol	Parameter		Value				Unit
		NPN	BD675/A	BD677/A	BD679/A	BD681	
		PNP	BD676/A	BD678/A	BD680/A	BD682	
BV_{CBO}	Collector-Base Voltage		45	60	80	100	V
BV_{CEO}	Collector-Emitter Voltage		45	60	80	100	V
BV_{EBO}	Emitter-Base Voltage		5				V
I_{CM}	Collector Current		4				A
P_D	Collector Power Dissipation		40				W
Tj、Tstg	Junction Temperature Storage Temperature		- 55～＋150				℃

Electrical Characteristics (Ta=25℃)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{CBO}	Collector Cut-off Current (IE = 0)	V_{CE} = rated V_{CBO} V_{CE} = rated V_{CBO} T_C = 100 ℃			0.2 2	mA
I_{CEO}	Collector Cut-off Current (IB = 0)	V_{CE} = half rated V_{CEO}			0.5	mA
I_{EBO}	Emitter Cut-off Current(IC = 0)	V_{EB} = 5 V			2	mA
BV_{CEO}	Collector-Emitter Sustaining Voltage	I_C = 50 mA for **BD675/675A/676/676A** for **BD677/677A/678/678A** for **BD679/679A/680/680A** for **BD681/682**	45 60 80 100			V
BV_{CBO}	Collector-Emitter Sustaining Voltage	I_C = 1 mA for **BD675/675A/676/676A** for **BD677/677A/678/678A** for **BD679/679A/680/680A** for **BD681/682**	45 60 80 100			V
H_{FE}*	DC Current Gain	for **BD675/677/678/679/680/681/682** I_C = 1.5 A V_{CE} = 3 V for **BD675A/677A/678A/679A/680A** I_C = 2 A V_{CE} = 3 V	750 750			
V_{CESAT}*	Collector-Emitter Saturat ion Voltage	for **BD677/678/679/680/681/682** I_C = 1.5 A IB = 30 mA for **BD677A/678A/679A/680A** I_C = 2 A I_B = 40 mA			2.5 2.8	V
V_{BE}*	Base-EmitterVoltage	for **BD675/677/678/679/680/681/682** I_C = 1.5 A V_{CE} = 3 V for **BD675A/677A/678A/679A/680A** I_C = 2 A V_{CE} = 3 V			2.5 2.5	V

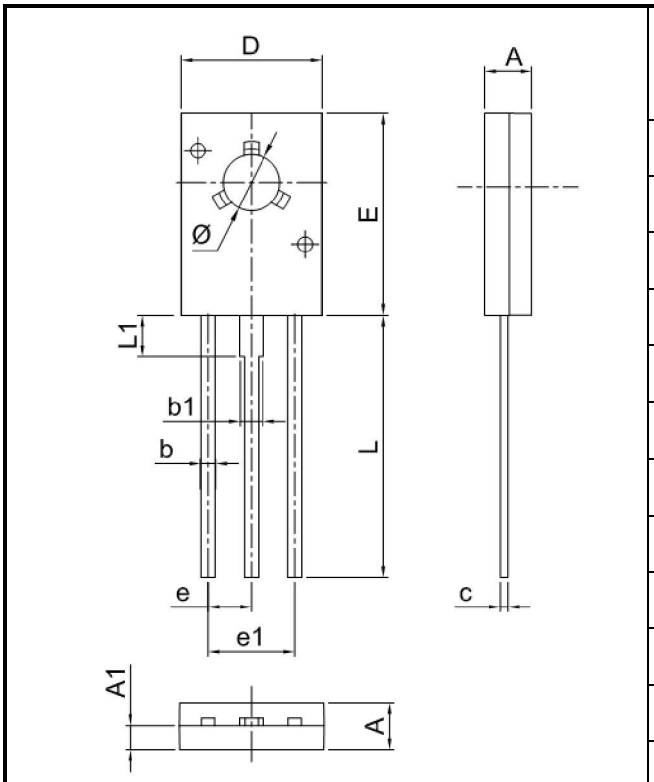
* Pulsed: Pulse duration = 300 μs, duty cycle 1.5 %

Ordering information

Package	Packing Description	Base Quantity
TO-126	Bulk	500pcs/Bag

Package Dimensions

TO-126



Symbol	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	2.40	2.80	0.094	0.110
A1	1.00	1.40	0.039	0.055
b	0.66	0.86	0.026	0.034
b1	1.17	1.37	0.046	0.054
c	0.40	0.60	0.016	0.024
D	7.30	7.70	0.287	0.303
E	10.60	11.00	0.417	0.433
e	2.25	2.33	0.089	0.092
e1	4.50	4.66	0.177	0.183
L	14.00	15.00	0.551	0.591
L1	1.90	2.50	0.075	0.098
Φ	3.10	3.30	0.122	0.130

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