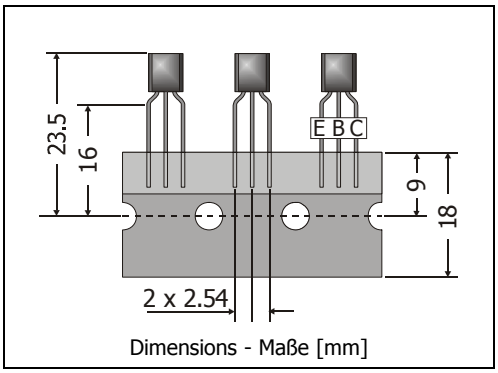
Diotec Semiconductor

BCX38B

NPN — **Si-Epitaxial Planar Darlington-Transistors**
Si-Epitaxial Planar Darlington-Transistoren — **NPN**

Version 2006-07-24



Dimensions - Maße [mm]

Power dissipation Verlustleistung	625 mW
Plastic case Kunststoffgehäuse	TO-92 (10D3)
Weight approx. – Gewicht ca.	0.18 g
Plastic material has UL classification 94V-0 Gehäusematerial UL94V-0 klassifiziert	
Standard packaging taped in ammo pack Standard Lieferform gegurtet in Ammo-Pack	

RoHS Pb WEEE ELV

Maximum ratings (T_A = 25°C) — Grenzwerte (T_A = 25°C)

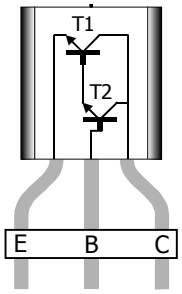
			BCX38B
Collector-Emitter-volt. – Kollektor-Emitter-Spannung	B open	V_{CEO}	60 V
Collector-Base-voltage – Kollektor-Basis-Spannung	E open	V_{CBO}	80 V
Emitter-Base-voltage – Emitter-Basis-Spannung	C open	V_{EBO}	10 V
Power dissipation – Verlustleistung		P_{tot}	625 mW [1])
Collector current – Kollektorstrom (dc)		I_C	800 mA
Peak Collector current – Kollektor-Spitzenstrom		I_{CM}	2 A
Junction temperature – Sperrschichttemperatur Storage temperature – Lagerungstemperatur		T_j T_S	-55...+150°C -55...+150°C

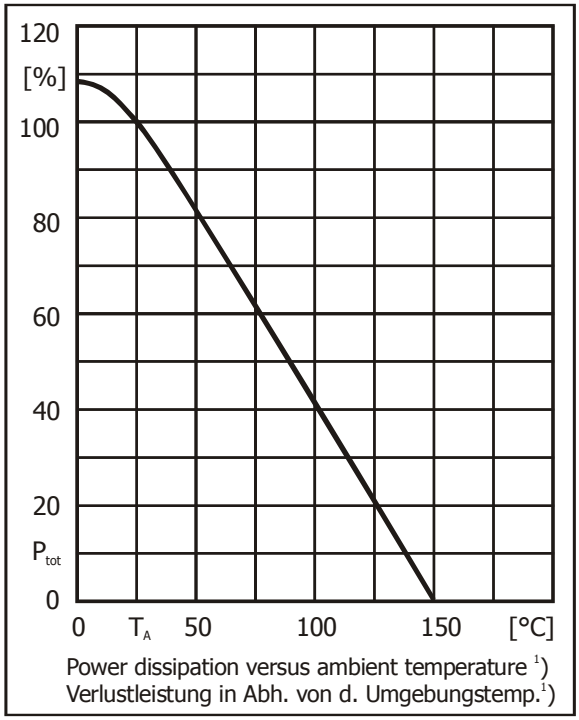
Characteristics (T_j = 25°C) — Kennwerte (T_j = 25°C)

		Min.	Typ.	Max.
DC current gain – Kollektor-Basis-Stromverhältnis [2])				
I_C = 100 mA, V_{CE} = 5 V	h_{FE}	2000	–	–
I_C = 500 mA, V_{CE} = 5 V	h_{FE}	4000	–	–
Collector-Emitter saturation voltage – Kollektor-Emitter-Sättigungsspg. [2])				
I_C = 800 mA, I_B = 8 mA	V_{CEsat}	–	–	1.25 V
Base-Emitter voltage – Basis-Emitter-Spannung [2])				
I_C = 800 mA, V_{CE} = 5 V	V_{BE}	–	–	1.8 V
Collector-Base cutoff current – Kollektor-Basis-Reststrom				
V_{CB} = 60 V, (E open)	I_{CBO}	–	–	100 nA
Emitter-Base cutoff current – Emitter-Basis-Reststrom				
V_{EB} = 8 V, (C open)	I_{EB0}	–	–	100 nA

1 Valid, if leads are kept at ambient temperature at a distance of 2 mm from case
Gültig wenn die Anschlussdrähte in 2 mm Abstand vom Gehäuse auf Umgebungstemperatur gehalten werden
2 Tested with pulses t_p = 300 µs, duty cycle ≤ 2% – Gemessen mit Impulsen t_p = 300 µs, Schaltverhältnis ≤ 2%

Characteristics (T_j = 25°C)		**Kennwerte (Tj = 25°C)**
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft	R_{thA}	< 200 K/W [1])

Pinning – Anschlußbelegung	
	Si-Epitaxial Planar Darlington-Transistors Si-Epitaxial Planar Darlington-Transistoren



Power dissipation versus ambient temperature [1])
Verlustleistung in Abh. von d. Umgebungstemp.[1])

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