

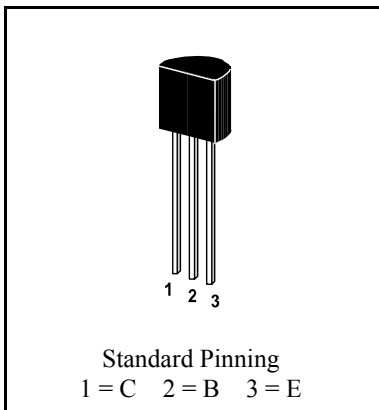
Order code	Manufacturer code	Description
81-0397	n/a	BC337-25 TO-92 50V NPN TRANS (DIOTEC) RC

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The enclosed information is believed to be correct, Information may change without notice due to product improvement. Users should ensure that the product is suitable for their use. E. & O. E.	Revision A 20/02/2007

NPN

Si-Epitaxial Planar Transistors

NPN



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	

Maximum ratings ($T_A = 25^\circ\text{C}$)Grenzwerte ($T_A = 25^\circ\text{C}$)

			BC 337	BC 338
Collector-Emitter-voltage	B open	V_{CE0}	45 V	25 V
Collector-Base-voltage	E open	V_{CB0}	50 V	30 V
Emitter-Base-voltage	C open	V_{EB0}	5 V	
Power dissipation – Verlustleistung		P_{tot}	625 mW ¹⁾	
Collector current – Kollektorstrom (DC)		I_C	800 mA	
Junction temp. – Sperrschichttemperatur		T_j	150°C	
Storage temperature – Lagerungstemperatur		T_S	- 55...+ 150°C	

Characteristics ($T_j = 25^\circ\text{C}$)Kennwerte ($T_j = 25^\circ\text{C}$)

			Min.	Typ.	Max.
DC current gain – Kollektor-Basis-Stromverhältnis					
$V_{CE} = 1\text{ V}, I_C = 100\text{ mA}$	Group -16	h_{FE}	100	160	250
	Group -25	h_{FE}	160	250	400
	Group -40	h_{FE}	250	400	630
Collector-Emitter cutoff current – Kollektorreststrom					
$V_{CE} = 40\text{ V}$	BC 337	I_{CES}	–	–	200 nA
$V_{CE} = 20\text{ V}$	BC 338	I_{CES}	–	–	200 nA
$V_{CE} = 40\text{ V}, T_j = 125^\circ\text{C}$	BC 337	I_{CES}	–	–	10 μA
$V_{CE} = 20\text{ V}, T_j = 125^\circ\text{C}$	BC 338	I_{CES}	–	–	10 μA

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 von Gehäuse auf Umgebungstemperatur gehalten werden

Characteristics ($T_j = 25^\circ\text{C}$)Kennwerte ($T_j = 25^\circ\text{C}$)

		Min.	Typ.	Max.
Collector-Emitter breakdown voltage Collector-Emitter Durchbruchspannung				
$I_C = 10\text{ mA}$	BC 337 $V_{(BR)CES}$	40 V	–	–
	BC 338 $V_{(BR)CES}$	20 V	–	–
$I_C = 0.1\text{ mA}$	BC 337 $V_{(BR)CES}$	50 V	–	–
	BC 338 $V_{(BR)CES}$	30 V	–	–
Emitter-Base breakdown voltage Emitter-Basis-Durchbruchspannung				
$I_E = 10\ \mu\text{A}$	$V_{(BR)EB0}$	5 V	–	–
Collector saturation volt. – Kollektor-Sättigungsspannung $I_C = 500\text{ mA}, I_B = 50\text{ mA}$				
	V_{CEsat}	–	–	0.7 V
Base-Emitter voltage – Basis-Emitter-Spannung $V_{CE} = 1\text{ V}, I_C = 300\text{ mA}$				
	V_{BE}	–	–	1.2 V
Gain-Bandwidth Product – Transitfrequenz $V_{CE} = 5\text{ V}, I_C = 10\text{ mA}, f = 50\text{ MHz}$				
	f_T	–	100 MHz	–
Collector-Base Cap. – Kollektor-Basis-Kap. $V_{CB} = 10\text{ V}, f = 1\text{ MHz}$				
	C_{CB0}	–	12 pF	–
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft		R_{thA}		200 K/W ¹⁾
Recommended complementary PNP transistors Empfohlene komplementäre PNP-Transistoren			BC 327 / BC 328	

Available current gain groups per type	BC 337-16	BC 337-25	BC337-40
Lieferbare Stromverstärkungsgruppen pro Typ	BC 338-16	BC 338-25	BC338-40

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