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PNP Epitaxial Silicon Transistor

Features

- Switching and Amplifier
- High-Voltage: BC556, V_{CEO} = -65 V
- Low-Noise: BC559, BC560
- Complement to BC546, BC547, BC548, BC549, and BC550



Straight Lead Ber Bulk Packing Tape Amm

Bent Lead Tape & Reel Ammo Packing

Ordering Information

Part Number	Marking	Package	Packing Method	
BC556ABU	BC556A	TO-92 3L	Bulk	
BC556ATA	BC556A	TO-92 3L	Ammo	
BC556BTA	BC556B	TO-92 3L	Ammo	
BC556BTF	BC556B	TO-92 3L	Tape and Reel	
BC556BTFR	BC556B	TO-92 3L	Tape and Reel	
BC557ATA	BC557A	TO-92 3L	Ammo	
BC557BTA	BC557B	TO-92 3L	Ammo	
BC557BTF	BC557B	TO-92 3L	Tape and Reel	
BC558BTA	BC558B	TO-92 3L	Ammo	
BC559BTA	BC559B	TO-92 3L	Ammo	
BC559CTA	BC559C	TO-92 3L	Ammo	
BC560CTA	BC560C	TO-92 3L	Ammo	

BC556 / BC557 / BC558 / BC559 / BC560 — PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings

Stresses exceeding the absolute maximum ratings may damage the device. The device may not function or be operable above the recommended operating conditions and stressing the parts to these levels is not recommended. In addition, extended exposure to stresses above the recommended operating conditions may affect device reliability. The absolute maximum ratings are stress ratings only. Values are at $T_A = 25^{\circ}C$ unless otherwise noted.

Symbol	Paramet	Value	Unit		
		BC556	-80		
V _{CBO} C	Collector-Base Voltage	BC557 / BC560	-50	V	
		BC558 / BC559	-30		
V _{CEO} Collect		BC556	-65		
	Collector-Emitter Voltage	BC557 / BC560	-45	V	
		BC558 / BC559	-30		
V _{EBO}	Emitter-Base Voltage		-5	V	
۱ _C	Collector Current (DC)		-100	mA	
I _{CP}	Peak Collector Current (Pulse)		-200	mA	
I _{BP}	Peak Base Current (Pulse)		-200	mA	
TJ	Junction Temperature		150	°C	
T _{STG}	Storage Temperature Range		-65 to +150	°C	

Thermal Characteristics⁽¹⁾

Values are at $T_A = 25^{\circ}C$ unless otherwise noted.

Symbol	Parameter	Max.	Unit
Б	Total Power Dissipation	500	mW
۳D	Derate Above 25°C	4.0	mW/°C
$R_{ extsf{ heta}JA}$	Thermal Resistance, Junction-to-Ambient	250	°C/W

Note:

1. PCB size: FR-4, 76 mm x 114 mm x 1.57 mm (3.0 inch x 4.5 inch x 0.062 inch) with minimum land pattern size.

Electrical Characteristics

Values are at $T_A = 25^{\circ}C$ unless otherwise noted.

Symbol	Parameter		Conditions	Min.	Тур.	Max.	Unit
I _{CBO}	Collector Cut-Off Current		$V_{CB} = -30 \text{ V}, \text{ I}_{E} = 0$			-15	nA
h _{FE}	DC Current Gain		$V_{CE} = -5 \text{ V}, \text{ I}_{C} = -2 \text{ mA}$	110		800	
Collector-Emitter Saturation		-Emitter Saturation	I _C = -10 mA, I _B = -0.5 mA		-90	-300	m\/
Voltage	Voltage		I _C = -100 mA, I _B = -5 mA		-250	-650	IIIV
		Baco Saturation Voltago	$I_{\rm C} = -10$ mA, $I_{\rm B} = -0.5$ mA		-700		m\/
v _{BE} (sat) Collec	Collector	-base Saturation voltage	I _C = -100 mA, I _B = -5 mA		-900		ΠIV
		aittar On Valtaga	$V_{CE} = -5 \text{ V}, I_{C} = -2 \text{ mA}$	-600	-660	-750	m\/
V _{BE} (OII) Base-EI	Dase-Ell	iller On vollage	$V_{CE} = -5 \text{ V}, I_{C} = -10 \text{ mA}$			-800	ΠIV
f _T	Current Gain Bandwidth Product		V _{CE} = -5 V, I _C = -10 mA, f = 10 MHz		150		MHz
C _{ob}	Output Capacitance		V _{CB} = -10 V, I _E = 0, f = 1 MHz			6	pF
NF Nois Figu	Noise Figure	BC556 / BC557 / BC558	V _{CE} = -5 V, I _C = -200 μA,		2	10	
		BC559 / BC560	f = 1 kHz, $R_G = 2 k\Omega$		1	4	dB
		BC559	$V_{CF} = -5 \text{ V}, \text{ I}_{C} = -200 \mu\text{A},$		1.2	4.0	
		BC560	$R_G = 2 k\Omega$, f = 30 to 15000 MHz		1.2	2.0	

h_{FE} Classification

Classification	А	В	С
h _{FE}	110 ~ 220	200 ~ 450	420 ~ 800









BC556 / BC557 / BC558 / BC559 / BC560 Rev. 1.7

BC556 / BC557 / BC558 / BC559 / BC560 — PNP Epitaxial Silicon Transistor

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