



BC546,BC547,BC548 SERIES

NPN GENERAL PURPOSE TRANSISTOR

VOLTAGE 30V/45V/65V **POWER** 625 mWatts

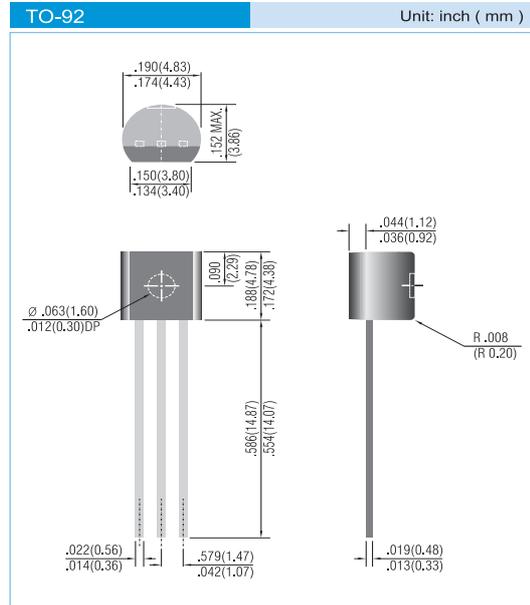
FEATURES

- NPN epitaxial silicon, planar design
- Collector current $I_C = 100\text{mA}$
- Complimentary (PNP) device:BC556,BC557,BC558 Series
- Pb free product :99% Sn above can meet RoHS environment substance directive request

MECHANICAL DATA

- Case: TO-92
- Terminals: Solderable per MIL-STD-202, Method 208
- Approx Weight : 0.02grams
- Device Marking :

BC546A=546A	BC546B=546B	-
BC547A=547A	BC547B=547B	BC547C=547C
BC548A=548A	BC548B=548B	BC548C=548C



ABSOLUTE MAXIMUM RATINGS

PARAMETER	Symbol	Value	Units
Collector - Emitter Voltage	V_{CEO}	65 45 30	V
Collector - Base Voltage	V_{CBO}	80 50 30	V
Emitter - Base Voltage	V_{EBO}	6.0 6.0 5.0	V
Collector Current - Continuous	I_C	100	mA
Max Power Dissipation	P_{TOT}	625	mW
Storage Temperature	T_{STG}	-55 to 150	°C
Junction Temperature	T_J	-55 to 150	°C

THERMAL CHARACTERISTICS

PARAMETER	Symbol	Value	Units
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	200	°C/W



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ELECTRICAL CHARACTERISTICS (T_j=25°C, unless otherwise noted)

PARAMETER	Symbol	MIN.	TYP.	MAX.	Units
Collector - Emitter Breakdown Voltage (I _c =10mA, I _b =0)	BC546A,B BC547A,B,C BC548A,B,C V _(BR) CEO	65 45 30	-	-	V
Collector - Base Breakdown Voltage (I _c =10uA, I _e =0)	BC546A,B BC547A,B,C BC548A,B,C V _(BR) CBO	80 50 30	-	-	V
Emitter - Base Breakdown Voltage (I _e =10uA, I _c =0)	BC546A,B BC547A,B,C BC548A,B,C V _(BR) EBO	6.0 6.0 5.0	-	-	V
Emitter-Base Cutoff Current (V _{EB} =5V)	I _{EBO}	-	-	100	nA
Collector-Base Cutoff Current(V _{CB} =30V,I _E =0)	T _j =150°C I _{CBO}	- -	- -	15 5.0	nA uA
DC Current Gain (I _c =10uA, V _{CE} =5V)	BC546A,B BC547A,B,C BC548A,B,C h _{FE}	- - -	90 150 270	- - -	-
(I _c =2.0mA, V _{CE} =5V)	BC546A,B BC547A,B,C BC548A,B,C	110 200 420	180 290 520	220 450 800	-
Collector - Emitter Saturation Voltage (I _c =10mA,I _b =0.5mA) (I _c =100mA,I _b =5.0mA)	V _{CE(SAT)}	- -	- -	0.25 0.6	V
Base - Emitter Saturation Voltage (I _c =10mA,I _b =0.5mA) (I _c =100mA,I _b =5.0mA)	V _{BE(SAT)}	- -	0.7 0.9	- -	V
Base - Emitter Voltage (I _c =2mA V _{CE} =0.5mA) (I _c =10mA, V _{CE} =5.0mA)	V _{BE(SAT)}	0.58 -	0.660 -	0.70 0.77	V
Collector - Base Capacitance (V _{CB} =10V,I _E =0,f=1MHz)	C _{CBO}	-	-	4.5	pF

LEGAL STATEMENT

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The information presented in this document is believed to be accurate and reliable. The specifications and information herein are subject to change without notice. Pan Jit makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose. Pan Jit products are not authorized for use in life support devices or systems. Pan Jit does not convey any license under its patent rights or rights of others.



BC546,BC547,BC548 SERIES

ELECTRICAL CHARACTERISTICS CURVE BC546A,BC547A,BC548A ONLY

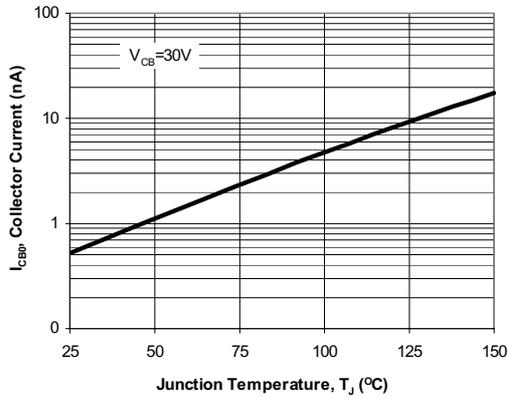


Fig. 1. Typical I_{CB0} vs.

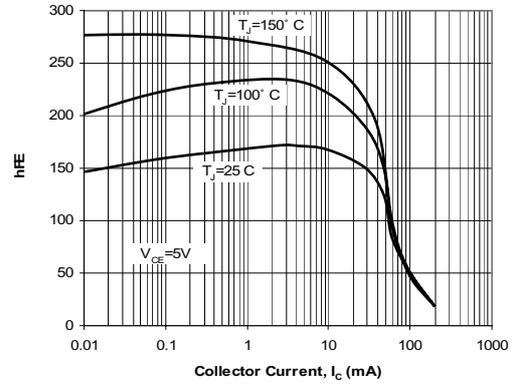


Fig. 2. Typical h_{FE} vs.

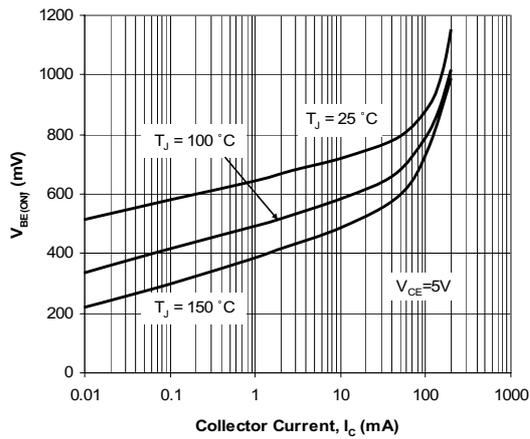


Fig. 3. Typical $V_{BE(ON)}$ vs.

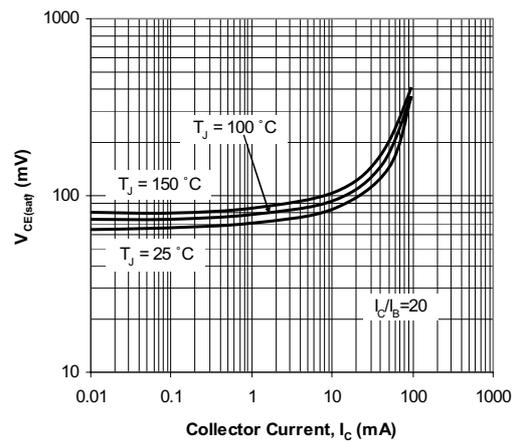


Fig. 4. Typical $V_{CE(SAT)}$ vs.

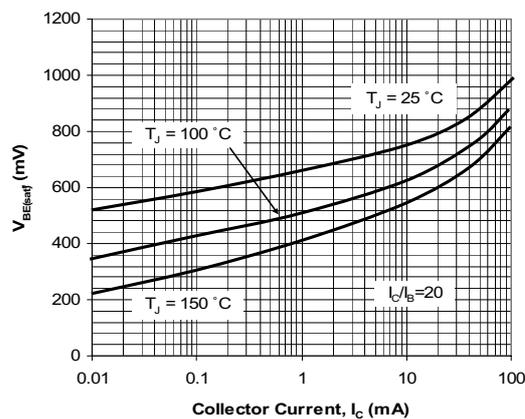


Fig. 5. Typical $V_{BE(SAT)}$ vs.

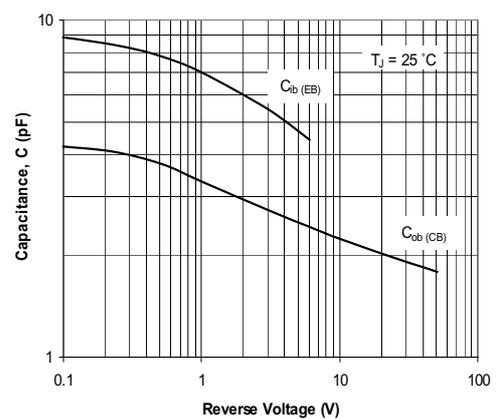


Fig. 6. Typical Capacitances vs.



BC546,BC547,BC548 SERIES

ELECTRICAL CHARACTERISTICS CURVE BC546B,BC547B,BC548B ONLY

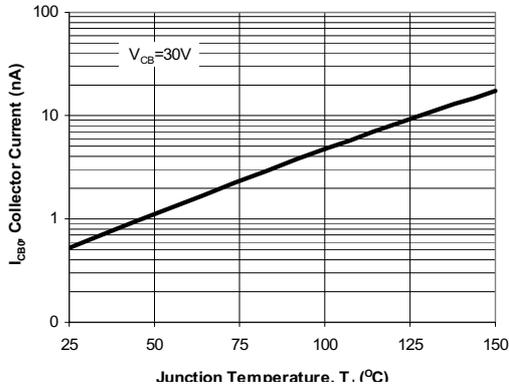


Fig. 1. Typical I_{CBO} vs. Junction Temperature

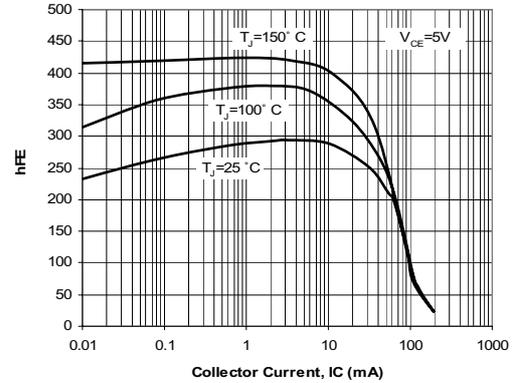


Fig. 2. Typical h_{FE} vs. Collector Current

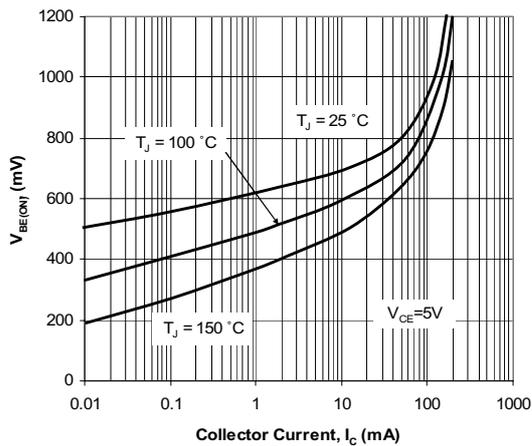


Fig. 3. Typical $V_{BE(ON)}$ vs. Collector Current

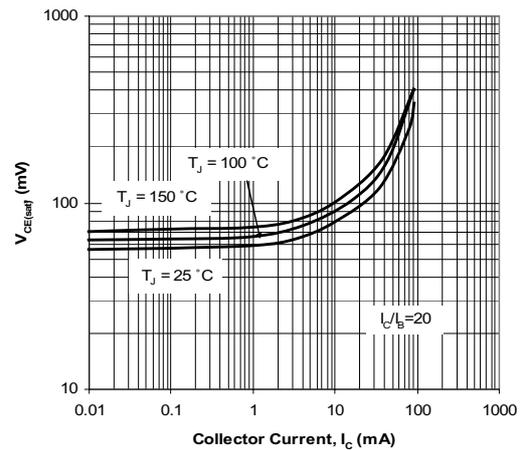


Fig. 4. Typical $V_{CE(SAT)}$ vs. Collector Current

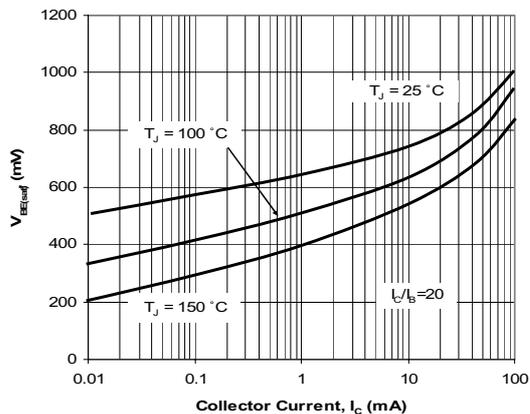


Fig. 5. Typical $V_{BE(SAT)}$ vs. Collector Current

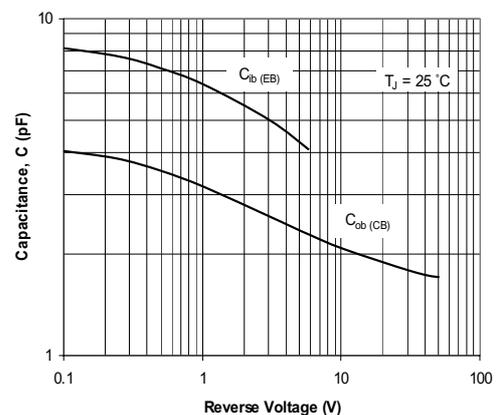


Fig. 6. Typical Capacitances vs. Reverse Voltage



BC546, BC547, BC548 SERIES

ELECTRICAL CHARACTERISTICS CURVE BC547C, BC548C ONLY

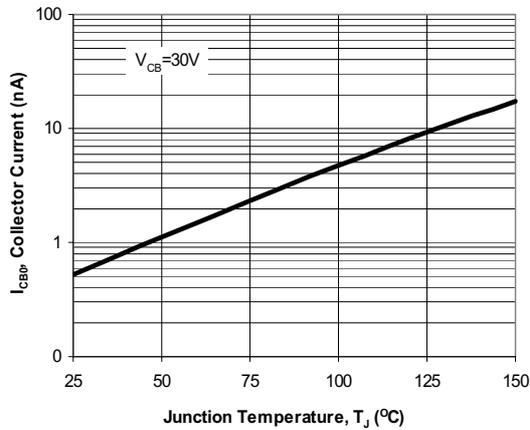


Fig. 1. Typical I_{CBO} vs. Junction

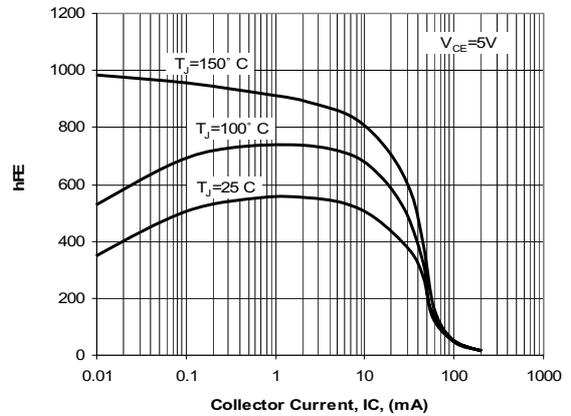


Fig. 2. Typical h_{FE} vs. Collector

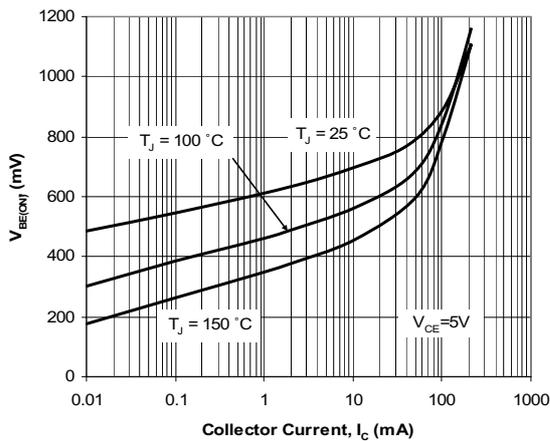


Fig. 3. Typical $V_{BE(ON)}$ vs. Collector Current

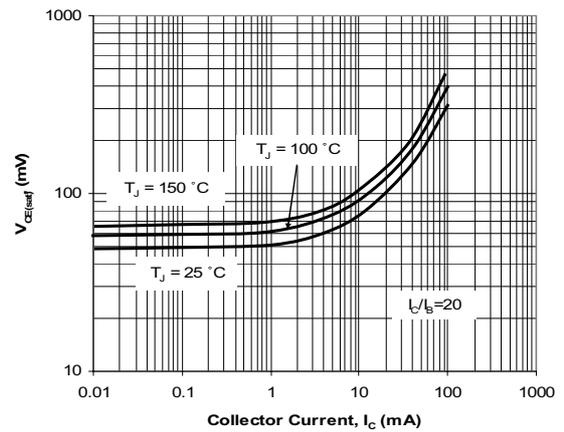


Fig. 4. Typical $V_{CE(SAT)}$ vs. Collector

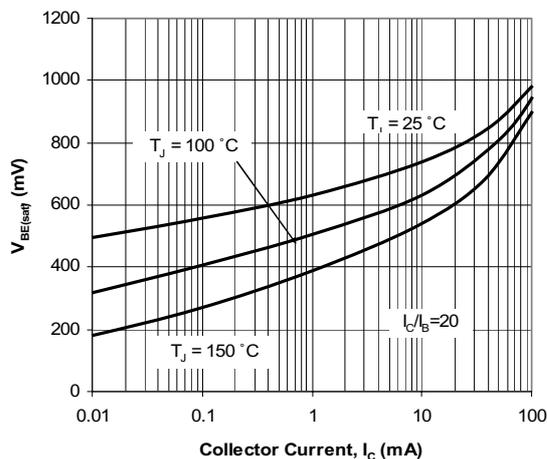


Fig. 5. Typical $V_{BE(SAT)}$ vs. Collector

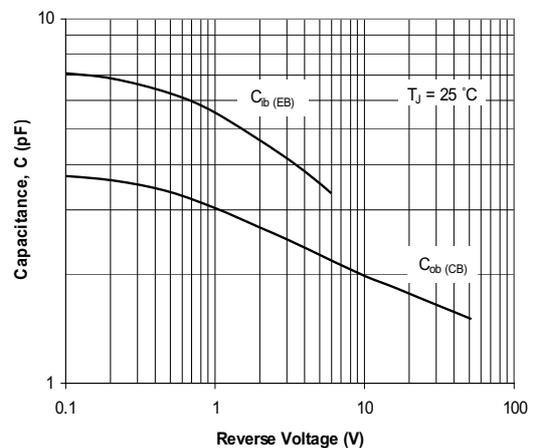


Fig. 6. Typical Capacitances vs. Reverse