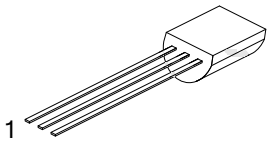
BC327/328

PNP EPITAXIAL SILICON TRANSISTOR

SWITCHING AND AMPLIFIER APPLICATIONS



TO-92

■ FEATURES

* Suitable for AF-Driver stages and low power output stages
* Complement to UTC **BC337/338**

■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
BC327L-xx-T92-B	BC327G-xx-T92-B	TO-92	C	B	E	Tape Box
BC327L-xx-T92-K	BC327G-xx-T92-K	TO-92	C	B	E	Bulk
BC328L-xx-T92-B	BC328G-xx-T92-B	TO-92	C	B	E	Tape Box
BC328L-xx-T92-K	BC328G-xx-T92-K	TO-92	C	B	E	Bulk

Note: Pin Assignment: C: Collector B: Base E: Emitter

BC327G-xx-T92-B (1)Packing Type (2)Package Type (3)Rank (4)Green Package	(1) B: Tape Box, K: Bulk (2) T92: TO-92 (3) xx: refer to CLASSIFICATION OF h_{FE} (4) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING

BC327	BC328
UTC BC327□ □□□ 1 L: Lead Free G: Halogen Free Date Code	UTC BC328□ □□□ 1 L: Lead Free G: Halogen Free Date Code

■ ABSOLUTE MAXIMUM RATING (T_A=25°C, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-emitter voltage	BC327	V_{CES}	-50	V
	BC328		-30	V
Collector-emitter voltage	BC327	V_{CEO}	-45	V
	BC328		-25	V
Emitter-base voltage		V_{EBO}	-5	V
Collector current (DC)		I_C	-800	mA
Peak Base Current		I_{BM}	-200	mA
Collector dissipation		P_C	625	mW
Junction Temperature		T_J	+125	°C
Operating Temperature		T_{OPR}	-20 ~ +85	°C
Storage Temperature		T_{STG}	-40 ~ +150	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified)

PARAMETER		SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-emitter breakdown voltage	BC327	BV_{CEO}	I_C=-10mA, I_B=0	-45			V
	BC328			-25			V
Collector-emitter breakdown voltage	BC327	BV_{CES}	I_C=-0.1mA, V_{BE}=0	-50			V
	BC328			-30			V
Emitter-base breakdown voltage		BV_{EBO}	I_E=-10mA, I_C=0	-5			V
Collector Cut-off Current	BC327	I_{CES}	V_{CE}=-45V, I_B=0		-2	-100	V
	BC328		V_{CE}=-25V, I_B=0		-2	-100	V
DC current gain		h_{FE1}	V_{CE}=-1V, I_C=-100mA	100		630	
		h_{FE2}	V_{CE}=-1V, I_C=-300mA	40			
Collector-emitter saturation voltage		$V_{CE(SAT)}$	I_C=-500mA, I_B=-50mA			-0.7	V
Base-emitter on voltage		$V_{BE(ON)}$	V_{CE}=-1V, I_C=-300mA			-1.2	V
Current gain bandwidth product		f_T	V_{CE}=-5V, I_C=-10mA, f=20MHz		100		MHz
Output Capacitance		C_{ob}	V_{CB}=-10V, I_E=0, f=1MHz		12		pF

■ CLASSIFICATION OF h_{FE}

RANK	16	25	40
h_{FE1}	100-250	160-400	250-630
h_{FE2}	60~	100~	170~

■ TYPICAL CHARACTERISTICS

Figure 1. Static Characteristic

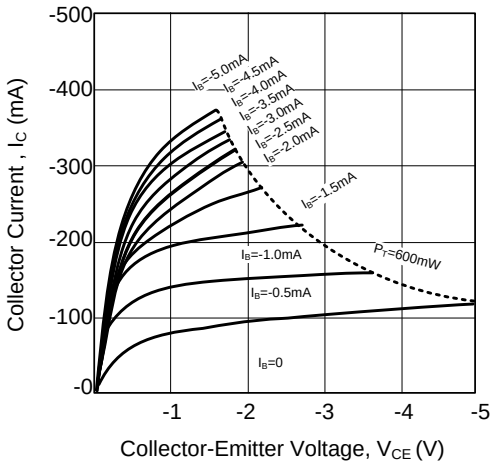


Figure 2. Static Characteristic

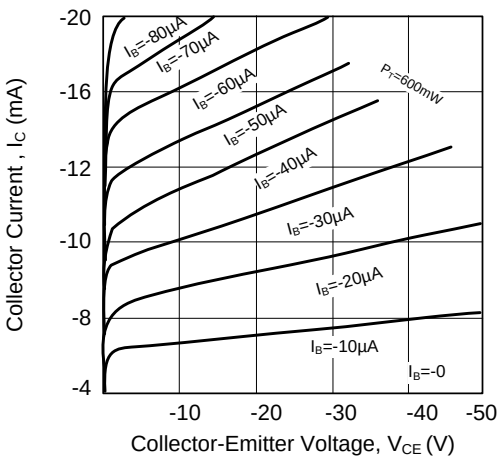


Figure 3. DC Current Gain

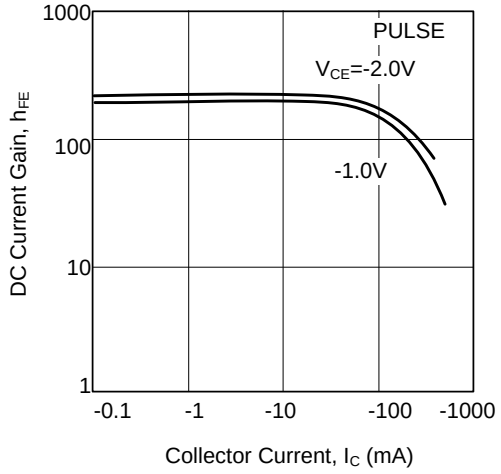


Figure 4. Base-Emitter Saturation Voltage vs. Collector-Emitter Saturation Voltage

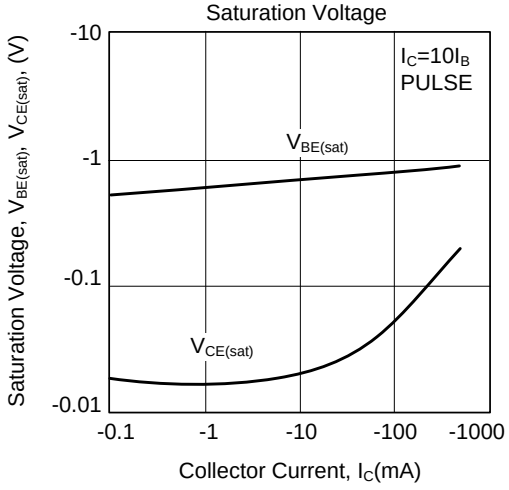


Figure 5. Base-Emitter On Voltage

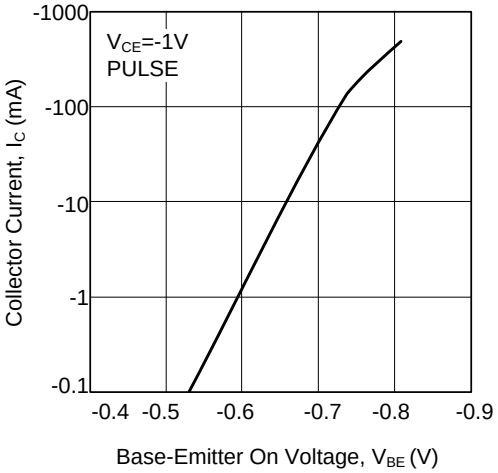
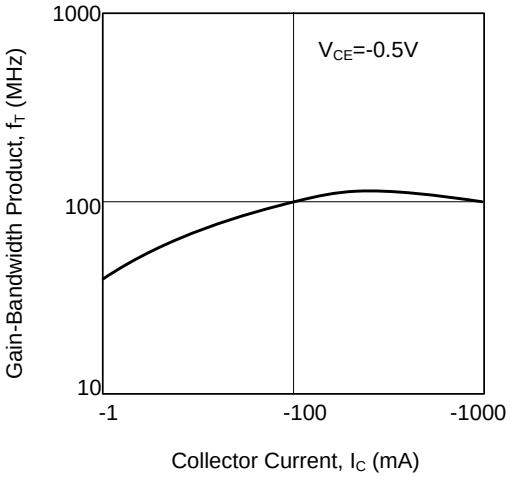


Figure 6. Gain Bandwidth Product



■ TYPICAL CHARACTERISTICS (Cont.)

Figure 5. Base-Emitter On Voltage

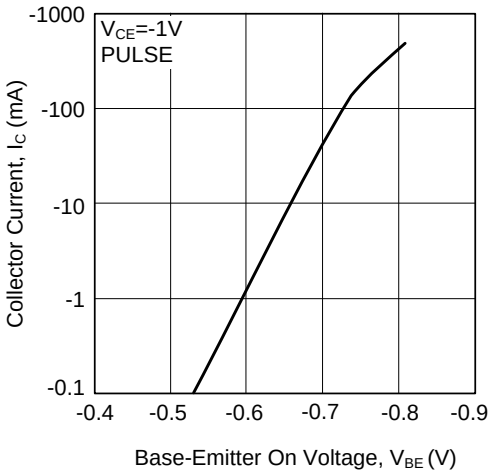


Figure 6. Gain Bandwidth Product

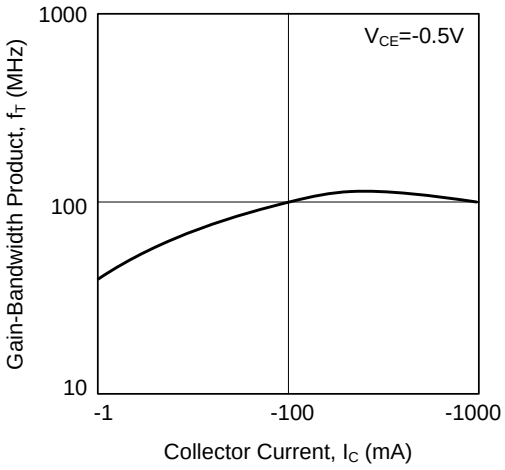


Figure 9. Power Derating