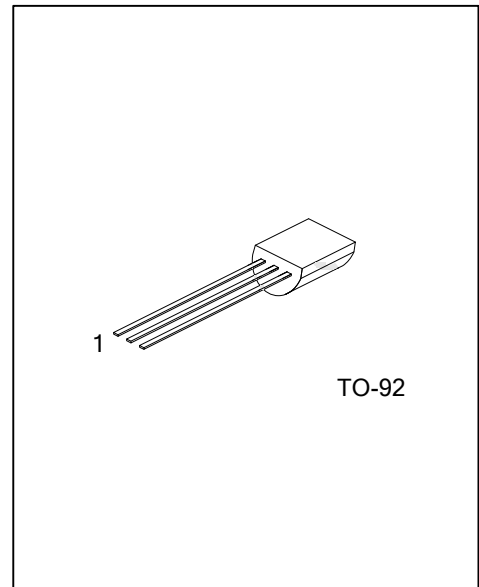


**BC337/BC338****NPN SILICON TRANSISTOR****SWITCHING AND AMPLIFIER APPLICATIONS****■ FEATURES**

- * Suitable for AF-Driver stages and low power output stages
- * Complement to UTC BC327/328

**■ ORDERING INFORMATION**

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
BC337L-xx-T92-B	BC337G-xx-T92-B	TO-92	C	B	E	Tape Box
BC337L-xx-T92-K	BC337G-xx-T92-K	TO-92	C	B	E	Bulk
BC338L-xx-T92-B	BC338G-xx-T92-B	TO-92	C	B	E	Tape Box
BC338L-xx-T92-K	BC338G-xx-T92-K	TO-92	C	B	E	Bulk

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

BC337L-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_{FE1} (4) L: Lead Free, G: Halogen Free and Lead Free
--	--

■ MARKING

BC337	BC338
UTC BC337 L: Lead Free G: Halogen Free Data Code 1	UTC BC338 L: Lead Free G: Halogen Free Data Code 1

BC337/BC338

NPN SILICON TRANSISTOR

■ ABSOLUTE MAXIMUM RATING ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Emitter Voltage	V_{CES}	50	V
		30	V
Collector-Emitter Voltage	V_{CEO}	45	V
		25	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current (DC)	I_C	800	mA
Collector Dissipation	P_C	625	mW
Derate Above 25°C		5	mW/ $^{\circ}\text{C}$
Junction Temperature	T_J	125	$^{\circ}\text{C}$
Operating Temperature	T_{OPR}	$-20 \sim +85$	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	$-40 \sim +150$	$^{\circ}\text{C}$

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.

■ THERMAL DATA

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	θ_{JA}	200	$^{\circ}\text{C}/\text{W}$
Junction to Case	θ_{JC}	83.3	$^{\circ}\text{C}/\text{W}$

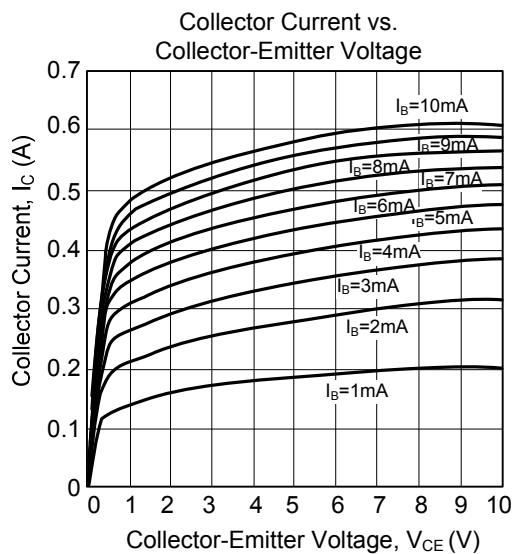
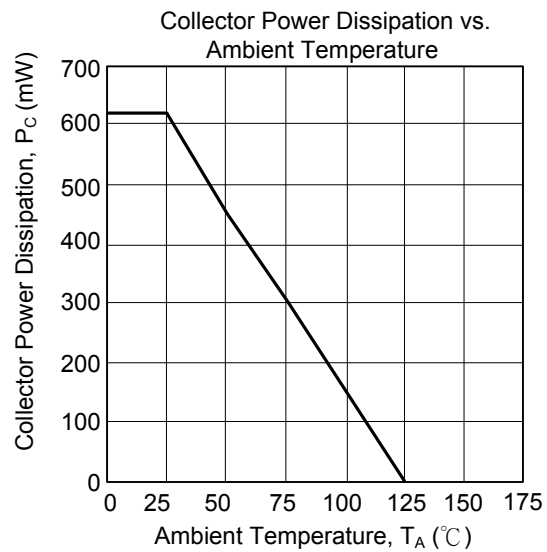
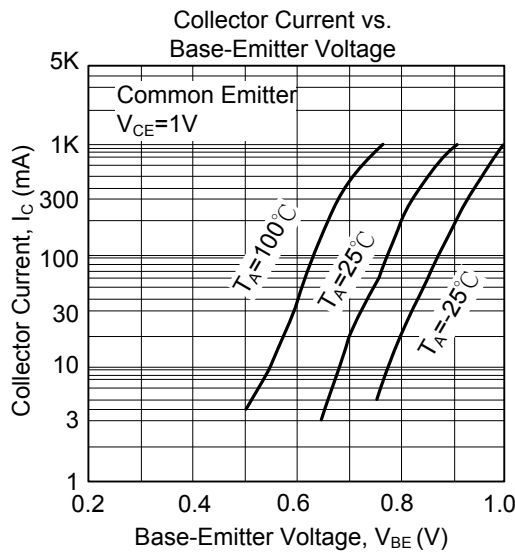
■ ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=10\text{mA}, I_B=0$	45			V
			25			V
Collector-Emitter Breakdown Voltage	BV_{CES}	$I_C=0.1\text{mA}, V_{BE}=0$	50			V
			30			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=0.1\text{mA}, I_C=0$	5			V
Collector Cut-off Current	I_{CES}	$V_{CE}=45\text{V}, I_B=0$		2	100	nA
		$V_{CE}=25\text{V}, I_B=0$		2	100	nA
DC Current Gain	h_{FE1}	$V_{CE}=1\text{V}, I_C=100\text{mA}$	100		630	
	h_{FE2}	$V_{CE}=1\text{V}, I_C=300\text{mA}$	60			
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=500\text{mA}, I_B=50\text{mA}$			0.7	V
Base-Emitter on Voltage	$V_{BE(ON)}$	$V_{CE}=1\text{V}, I_C=300\text{mA}$			1.2	V
Output Capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$		12		pF
Current Gain Bandwidth Product	f_T	$V_{CE}=5\text{V}, I_C=10\text{mA}, f=50\text{MHz}$		100		MHz

■ CLASSIFICATION OF h_{FE1}

RANK	16	25	40
h_{FE1}	100-250	160-400	250-630

■ TYPICAL CHARACTERISTICS



UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.