



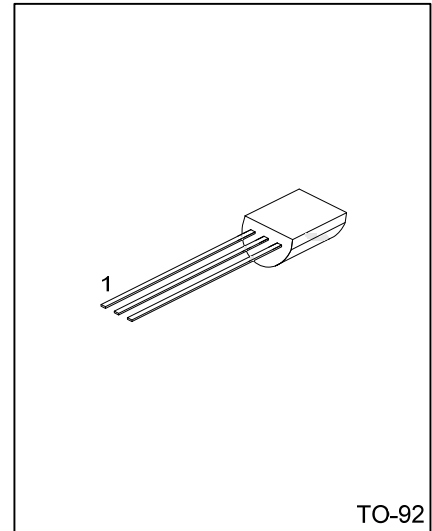
BC337/BC338

NPN SILICON TRANSISTOR

SWITCHING AND AMPLIFIER APPLICATIONS

■ FEATURES

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



Lead-free: BC337L/BC338L
Halogen-free: BC337G/BC338G

■ ORDERING INFORMATION

Ordering Number			Package	Pin Assignment			Packing
Normal	Lead Free Plating	Halogen Free		1	2	3	
BC337-x-T92-B	BC337L-x-T92-B	BC337G-x-T92-B	TO-92	C	B	E	Tape Box
BC337-x-T92-K	BC337L-x-T92-K	BC337G-x-T92-K	TO-92	C	B	E	Bulk
BC338-x-T92-B	BC338L-x-T92-B	BC338G-x-T92-B	TO-92	C	B	E	Tape Box
BC338-x-T92-K	BC338L-x-T92-K	BC338G-x-T92-K	TO-92	C	B	E	Bulk

<p>BC337L-x-T92-B</p> <p>(1)Packing Type (2)Package Type (3)Rank (4)Lead Plating</p>	<p>(1) B: Tape Box, K: Bulk (2) T92: TO-92 (3) x: refer to Classification of h_{FE1} (4) G: Halogen Free, L: Lead Free Plating, Blank: Pb/Sn</p>
--	---

BC337/BC338

NPN SILICON TRANSISTOR

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

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Emitter Voltage	BC337	V_{CES}	50	V
	BC338		30	V
Collector-Emitter Voltage	BC337	V_{CEO}	45	V
	BC338		25	V
Emitter-Base Voltage		V_{EBO}	5	V
Collector Current (DC)		I_C	800	mA
Collector Dissipation Derate above 25°C		P_C	625	mW
			5	mW/°C
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.

■ THERMAL DATA

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	θ_{JA}	200	°C/W
Junction to Case	θ_{Jc}	83.3	°C/W

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

PARAMETER		SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage	BC337	BV_{CEO}	$I_C=10mA, I_B=0$	45			V
	BC338			25			V
Collector-Emitter Breakdown Voltage	BC337	BV_{CES}	$I_C=0.1mA, V_{BE}=0$	50			V
	BC338			30			V
Emitter-Base Breakdown Voltage		BV_{EBO}	$I_E=0.1mA, I_C=0$	5			V
Collector Cut-off Current	BC337	I_{CES}	$V_{CE}=45V, I_B=0$		2	100	nA
	BC338		$V_{CE}=25V, I_B=0$		2	100	nA
DC Current Gain		h_{FE1}	$V_{CE}=1V, I_C=100mA$	100		630	
		h_{FE2}	$V_{CE}=1V, I_C=300mA$	60			
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
Output Capacitance		C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$		12		pF
Current gain bandwidth product		f_T	$V_{CE}=5V, I_C=10mA, f=50MHz$		100		MHz

■ CLASSIFICATION OF h_{FE1}

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

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.