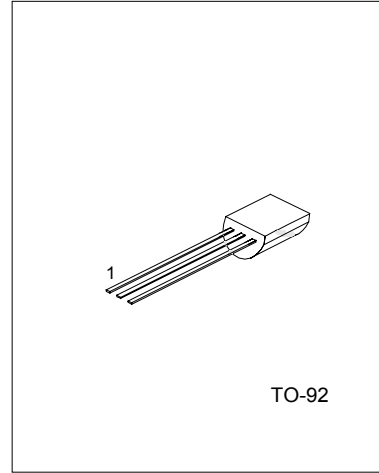


# UTC BC337/338 NPN EPITAXIAL SILICON TRANSISTOR

## SWITCHING AND AMPLIFIER APPLICATIONS

### FEATURES

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



1: COLLECTOR 2: BASE 3: EMITTER

### ABSOLUTE MAXIMUM RATINGS (Ta=25°C, unless otherwise specified)

PARAMETER	SYMBOL	RATING	UNIT
Collector-emitter voltage : BC337 : BC338	V <sub>CES</sub>	50 30	V V
Collector-emitter voltage : BC337 : BC338	V <sub>CEO</sub>	45 25	V V
Emitter-base voltage	V <sub>EBO</sub>	5	V
Collector current (DC)	I <sub>c</sub>	800	mA
Collector dissipation	P <sub>c</sub>	625	mW
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>STG</sub>	-55 ~ +150	°C

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-emitter breakdown voltage : BC337 : BC338	BV <sub>CEO</sub>	I <sub>c</sub> =10mA, I <sub>B</sub> =0	45 25			V V
Collector-emitter breakdown voltage : BC337 : BC338	BV <sub>CES</sub>	I <sub>c</sub> =0.1mA, V <sub>BE</sub> =0	50 30			V V
Emitter-base breakdown voltage	BV <sub>EBO</sub>	I <sub>E</sub> =0.1mA, I <sub>c</sub> =0	5			V
Collector Cut-off Current : BC337 : BC338	I <sub>CEs</sub>	V <sub>CE</sub> =45V, I <sub>B</sub> =0 V <sub>CE</sub> =25V, I <sub>B</sub> =0		2 2	100 100	nA nA
DC current gain	h <sub>FE1</sub> h <sub>FE2</sub>	V <sub>CE</sub> =1V, I <sub>c</sub> =100mA V <sub>CE</sub> =1V, I <sub>c</sub> =300mA	100 60		630	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>c</sub> =500mA, I <sub>B</sub> =50mA			0.7	V

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PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Base-emitter on voltage	$V_{BE(on)}$	$V_{CE}=1V, I_c=300mA$			1.2	V
Current gain bandwidth product	$f_T$	$V_{CE}=5V, I_c=10mA, f=50MHz$		100		MHz
Output Capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1MHz$		12		pF

### CLASSIFICATION OF $h_{FE1}$

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