

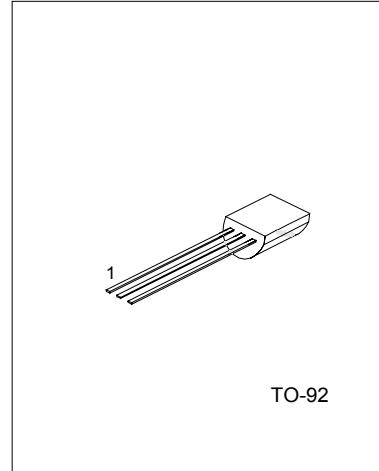
# UTC BC327/328 PNP EPITAXIAL SILICON TRANSISTOR

## SWITCHING AND AMPLIFIER APPLICATIONS

### FEATURES

\*Suitable for AF-Driver stages and low power output stages

\*Complement to BC337/338



1: COLLECTOR 2: BASE 3: EMITTER

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

PARAMETER	SYMBOL	RATING	UNIT
Collector-emitter voltage	V <sub>CES</sub>		
: BC327		-50	V
: BC328		-30	V
Collector-emitter voltage	V <sub>CEO</sub>		
: BC327		-45	V
: BC328		-25	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	BV <sub>CEO</sub>	I <sub>c</sub> =-10mA, I <sub>B</sub> =0				
: BC327			-45			V
: BC328			-25			V
Collector-emitter breakdown voltage	BV <sub>CES</sub>	I <sub>c</sub> =-0.1mA, V <sub>BE</sub> =0				
: BC327			-50			V
: BC328			-30			V
Emitter-base breakdown voltage	BV <sub>EBO</sub>	I <sub>E</sub> =-10mA, I <sub>c</sub> =0	-5			V
Collector Cut-off Current	I <sub>CEs</sub>					
: BC327		V <sub>CE</sub> =-45V, I <sub>B</sub> =0		-2	-100	nA
: BC328		V <sub>CE</sub> =-25V, I <sub>B</sub> =0		-2	-100	nA
DC current gain	h <sub>FE1</sub>	V <sub>CE</sub> =-1V, I <sub>c</sub> =-100mA	100		630	
	h <sub>FE2</sub>	V <sub>CE</sub> =-1V, I <sub>c</sub> =-300mA	40			
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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QW-R201-038,A

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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	$f_T$	$V_{CE}=-5V, I_c=-10mA, f=20MHz$		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~

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## TYPICAL CHARACTERISTICS

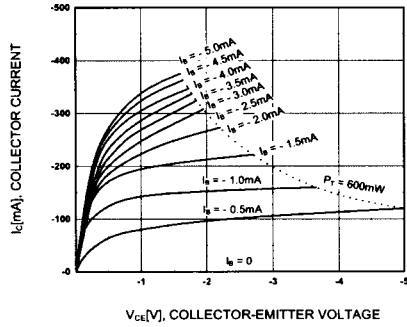


Figure 1. Static Characteristic

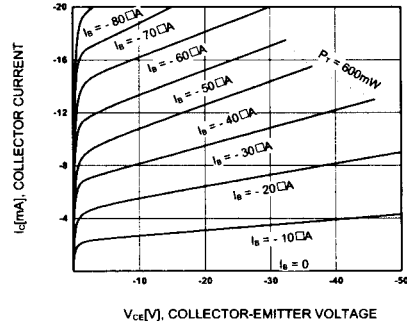


Figure 2. Static Characteristic

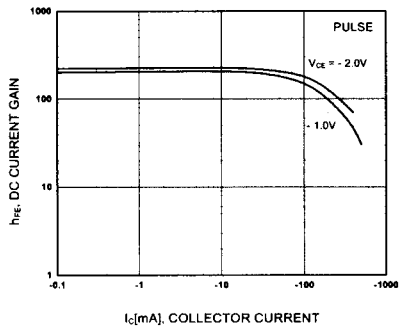


Figure 3. DC current Gain

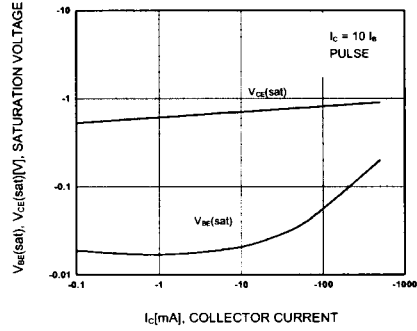


Figure 4. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

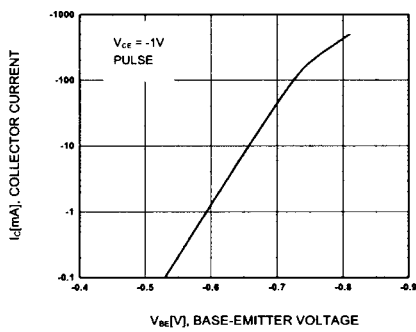


Figure 5. Base-Emitter On Voltage

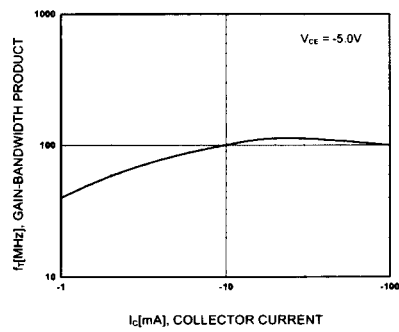
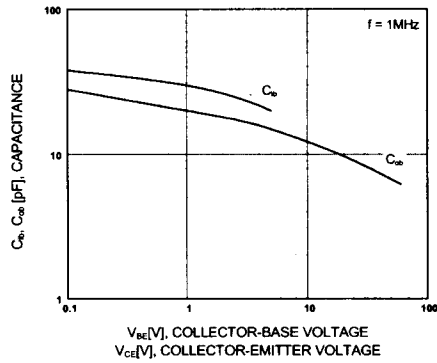
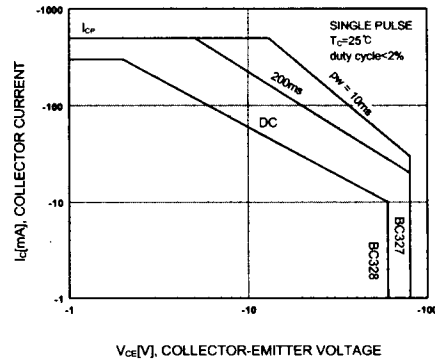


Figure 6. Gain Bandwidth Product

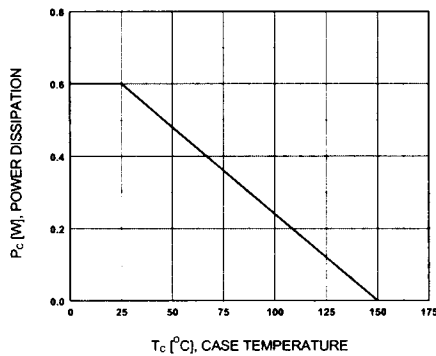
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**Figure 7. Input and Output Capacitance vs. Reverse Voltage**



**Figure 8. Safe Operating Area**



**Figure 9. Power Derating**

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