



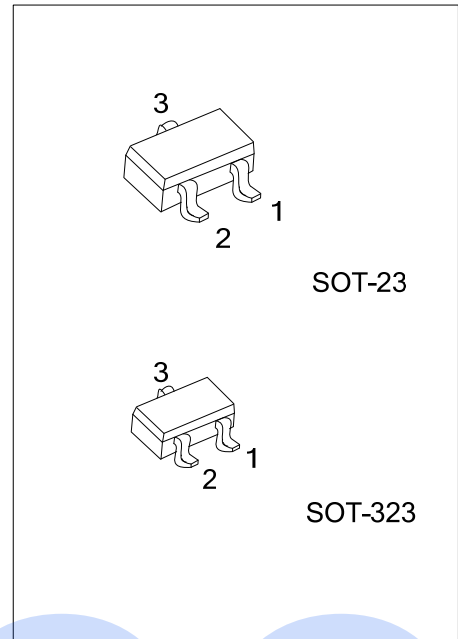
## BC817

## NPN SILICON TRANSISTOR

### NPN GENERAL PURPOSE AMPLIFIER

#### DESCRIPTION

The UTC **BC817** is designed for general purpose medium power amplifiers and switches requiring collector currents to 1.2A.



Lead-free: BC817L  
Halogen-free: BC817G

#### ORDERING INFORMATION

	Ordering Number		Package	Pin Assignment			Packing
	Normal	Lead Free		Halogen Free	1	2	
BC817-x-AE3-R	BC817L-x-AE3-R	BC817G-x-AE3-R	SOT-23	E	B	C	Tape Reel
BC817-x-AL3-R	BC817L-x-AL3-R	BC817G-x-AL3-R	SOT-323	E	B	C	Tape Reel

<p>BC817L-x-AE3-R</p> <p>(1) Packing Type (2) Package Type (3) Rank (4) Lead Plating</p>	<p>(1) R: Tape Reel (2) AE3: SOT-23, AL3: SOT-323 (3) x: refer to Classification of <math>h_{FE}</math> (4) G: Halogen Free, L: Lead Free, Blank: Pb/Sn</p>
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#### MARKING

BC817-16	BC817-25	BC817-40
<p>L: Lead Free G: Halogen Free</p>	<p>L: Lead Free G: Halogen Free</p>	<p>L: Lead Free G: Halogen Free</p>

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

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		$V_{CES}$	50	V
Collector-Emitter Voltage		$V_{CEO}$	45	V
Emitter-Base Voltage		$V_{EBO}$	5.0	V
Collector Current -Continuous		$I_C$	1.5	A
Collector Dissipation	SOT-23	$P_C$	310	mW
	SOT-323		200	mW
Junction Temperature		$T_J$	+150	°C
Storage Temperature		$T_{STG}$	-65 ~ +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.

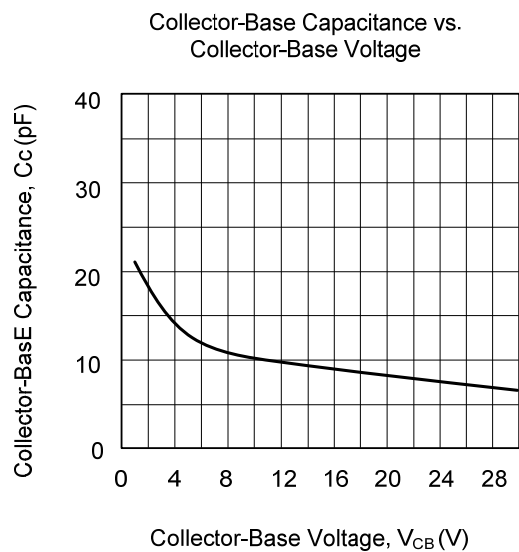
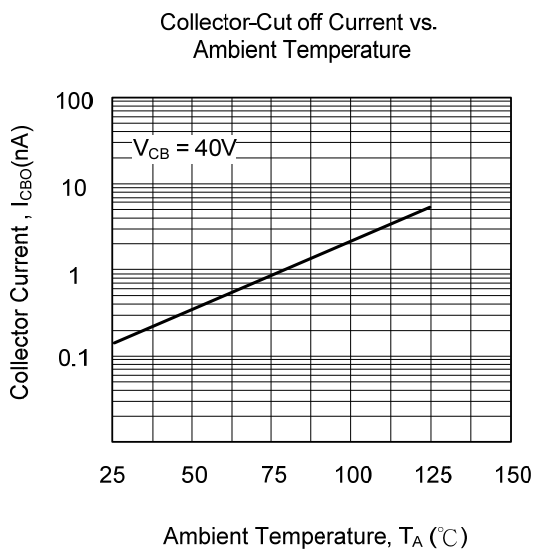
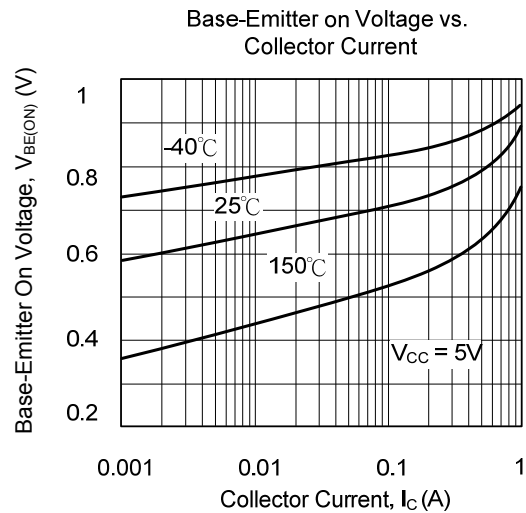
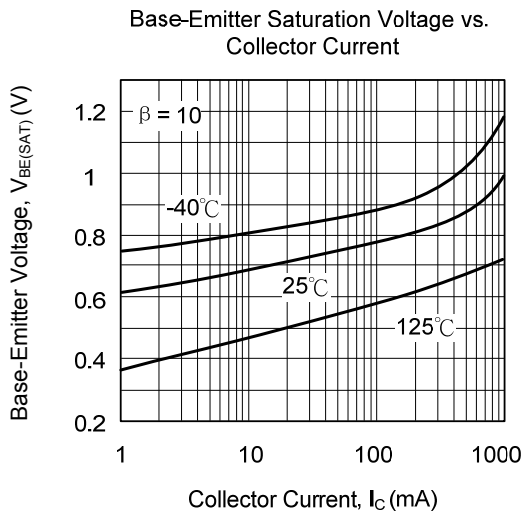
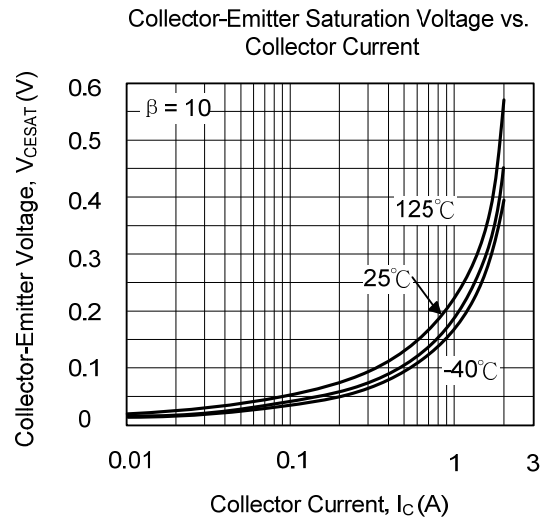
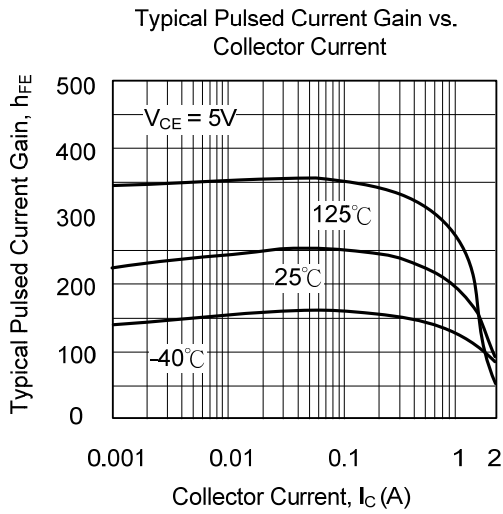
■ ELECTRICAL CHARACTERISTICS (Ta=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
<b>OFF CHARACTERISTICS</b>						
Collector-Emitter Breakdown Voltage	$BV_{CEO}$	$I_C=10mA, I_B=0$	45			V
Collector-Base Breakdown Voltage	$BV_{CES}$	$I_C=100\mu A, I_E=0$	50			V
Emitter-Base Breakdown Voltage	$BV_{EBO}$	$I_E=10\mu A, I_C=0$	5			V
Collector Cut-OFF Current	$I_{CBO}$	$V_{CB}=20V$			100	nA
		$V_{CB}=20V, T_a=150^\circ C$			5	$\mu A$
<b>ON CHARACTERISTICS</b>						
DC Current Gain	$h_{FE1}$	$I_C=100mA, V_{CE}=1.0V$	See Classification			
	$h_{FE2}$	$I_C=500mA, V_{CE}=1.0V$	40			
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=500mA, I_B=50mA$			0.7	V
Base-Emitter On Voltage	$V_{BE(ON)}$	$I_C=500mA, V_{CE}=1.0V$			1.2	V

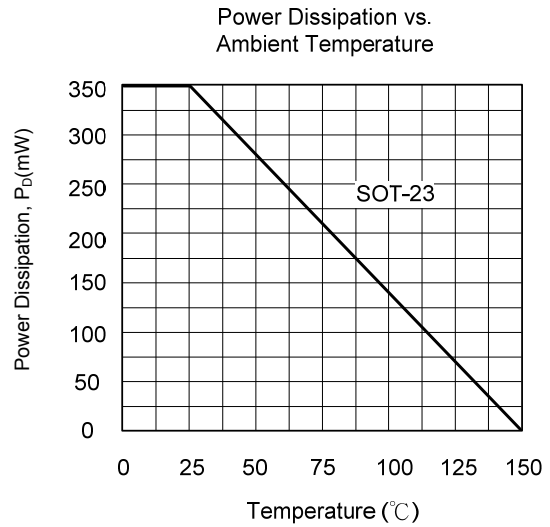
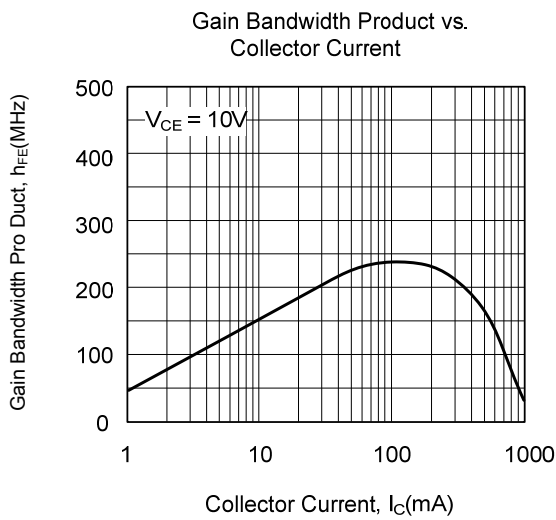
■ CLASSIFICATION OF  $h_{FE1}$

RANK	16	25	40
RANGE	100-250	160-400	250-600

## TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS(Cont.)



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