



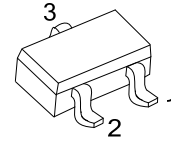
BC817

NPN SILICON TRANSISTOR

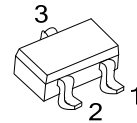
NPN GENERAL PURPOSE AMPLIFIER

DESCRIPTION

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



SOT-23
(JEDEC TO-236)



SOT-323

ORDERING INFORMATION

Ordering Number	Package	Pin Assignment			Packing
		1	2	3	
BC817G-xx-AE3-R	SOT-23	E	B	C	Tape Reel
BC817G-xx-AL3-R	SOT-323	E	B	C	Tape Reel

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

<p>BC817G-xx-AE3-R</p>	<p>(1) Packing Type (2) Package Type (3) Rank (4) Green Package</p>	<p>(1) R: Tape Reel (2) AE3: SOT-23, AL3: SOT-323 (3) xx: refer to Classification of hFE1 (4) G: Halogen Free and Lead Free</p>
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MARKING

BC817-16	BC817-25	BC817-40

■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$, 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	Continuous	I_C	1.5	A
	Peak	I_{CM}	1.7	A
Collector Dissipation	SOT-23	P_C	310	mW
	SOT-323		200	mW
Junction Temperature		T_J	+150	$^\circ\text{C}$
Storage Temperature		T_{STG}	-65 ~ +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.

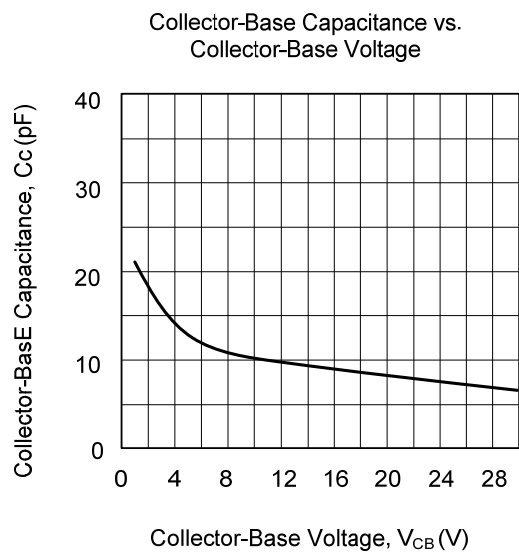
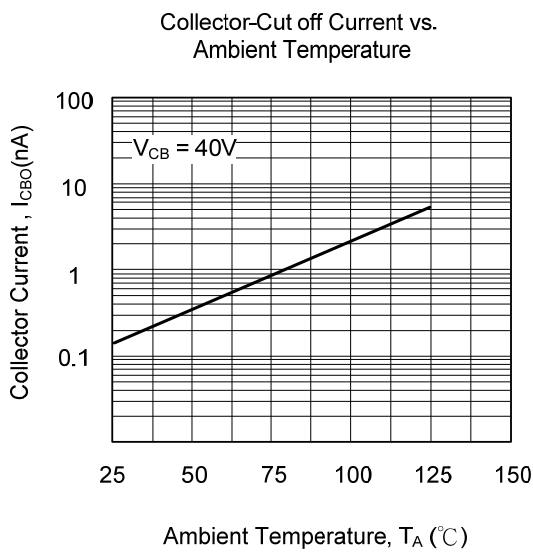
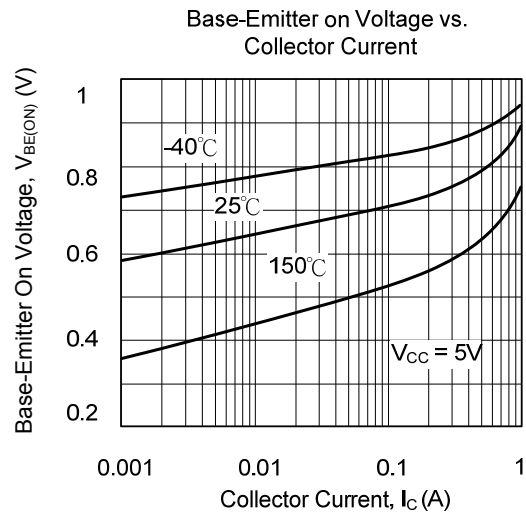
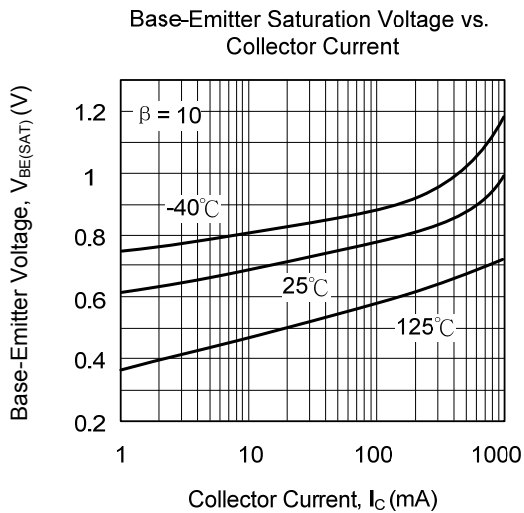
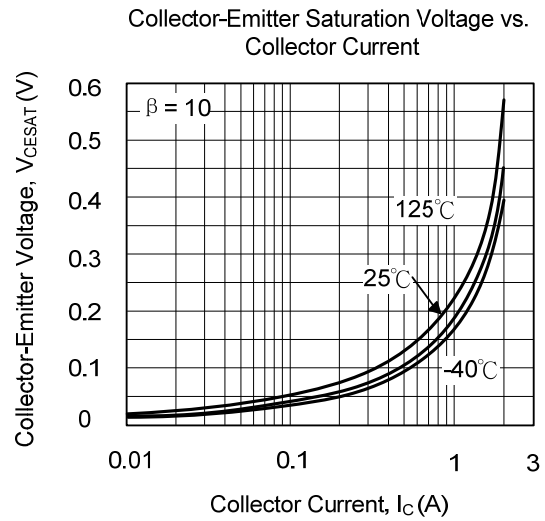
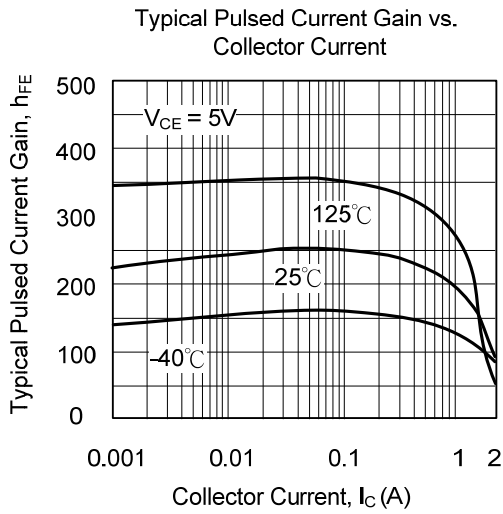
■ ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$, unless otherwise specified)

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

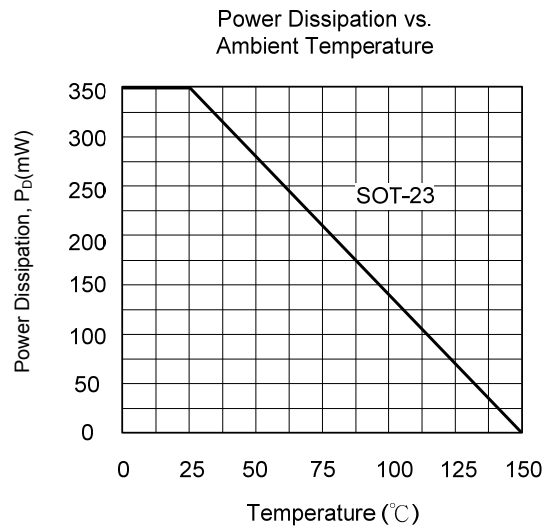
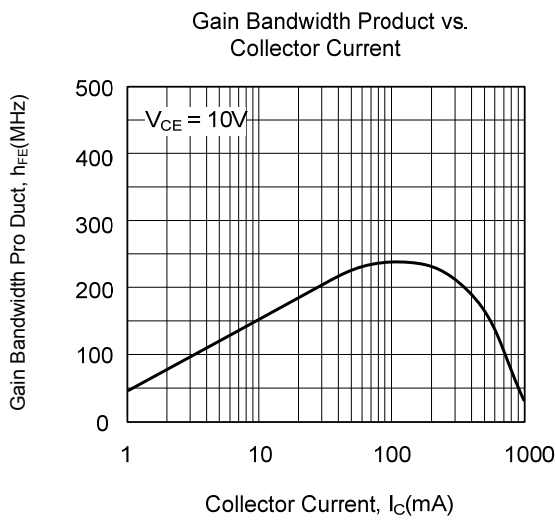
■ CLASSIFICATION OF h_{FE1}

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

TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS(Cont.)



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