



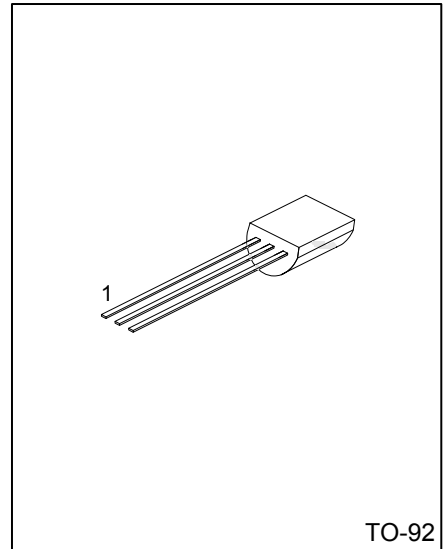
BC556/557/558

PNP SILICON TRANSISTOR

SWITCHING AND AMPLIFIER APPLICATIONS

■ FEATURES

* High Voltage: BC556, $V_{CE0}=-65V$



Lead-free: BC556L/BC557L/BC558L
Halogen-free: BC556G/BC557G/BC558G

■ ORDERING INFORMATION

Ordering Number			Package	Pin Assignment			Packing
Normal	Lead Free Plating	Halogen Free		1	2	3	
BC556-x-T92-B	BC556L-x-T92-B	BC556G-x-T92-B	TO-92	C	B	E	Tape Box
BC556-x-T92-K	BC556L-x-T92-K	BC556G-x-T92-K	TO-92	C	B	E	Bulk
BC557-x-T92-B	BC557L-x-T92-B	BC557G-x-T92-B	TO-92	C	B	E	Tape Box
BC557-x-T92-K	BC557L-x-T92-K	BC557G-x-T92-K	TO-92	C	B	E	Bulk
BC558-x-T92-B	BC558L-x-T92-B	BC558G-x-T92-B	TO-92	C	B	E	Tape Box
BC558-x-T92-K	BC558L-x-T92-K	BC558G-x-T92-K	TO-92	C	B	E	Bulk

<p>BC556L-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_{FE} (4) G: Halogen Free, L: Lead Free Plating, Blank: Pb/Sn</p>
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■ ABSOLUTE MAXIMUM RATING (Ta=25°C, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V _{CBO}	-80	V
		-50	V
		-30	V
Collector-Emitter Voltage	V _{CEO}	-65	V
		-45	V
		-30	V
Emitter-Base Voltage	V _{EBO}	-5	V
Collector Current (DC)	I _C	-100	mA
Collector Dissipation Derate above 25°C	P _C	625	mW
		5	mW/°C
Junction Temperature	T _J	150	°C
Storage Temperature	T _{STG}	-55~+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

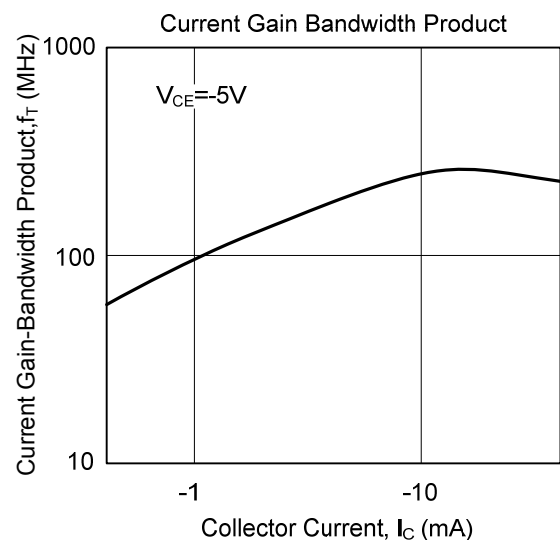
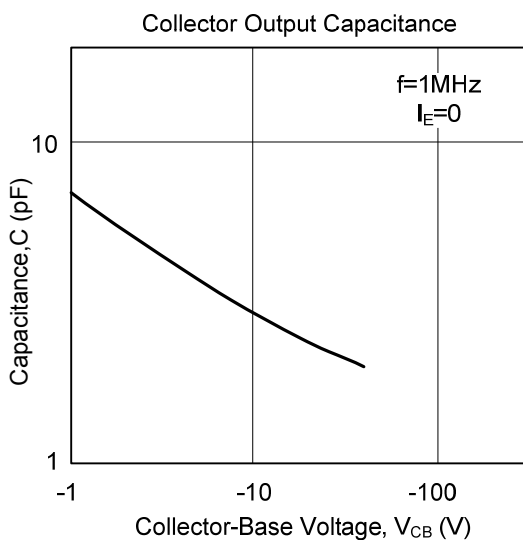
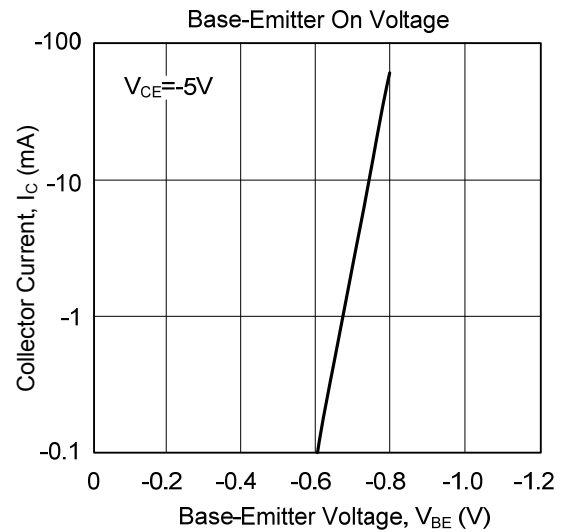
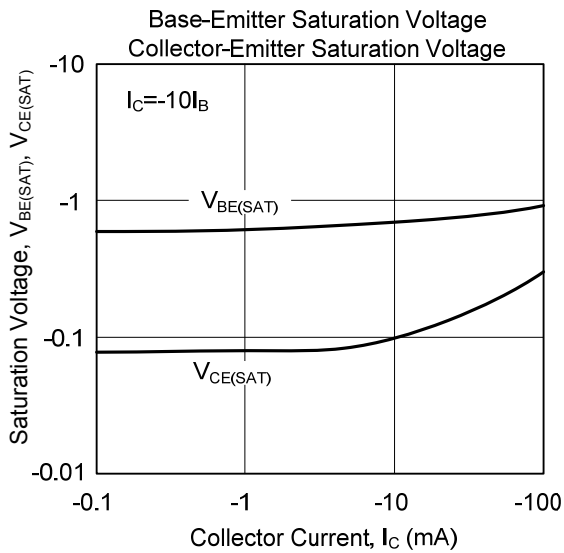
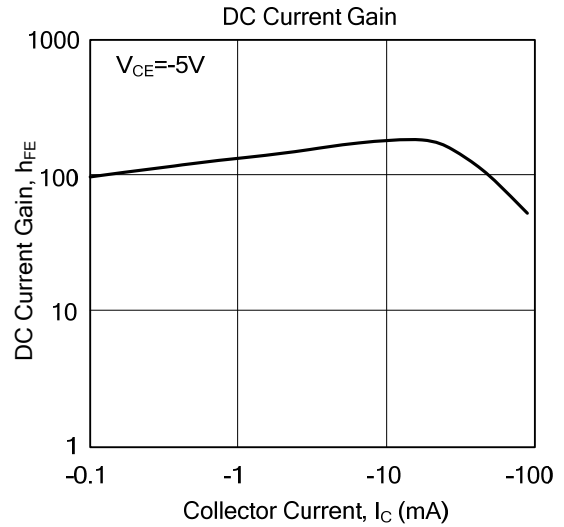
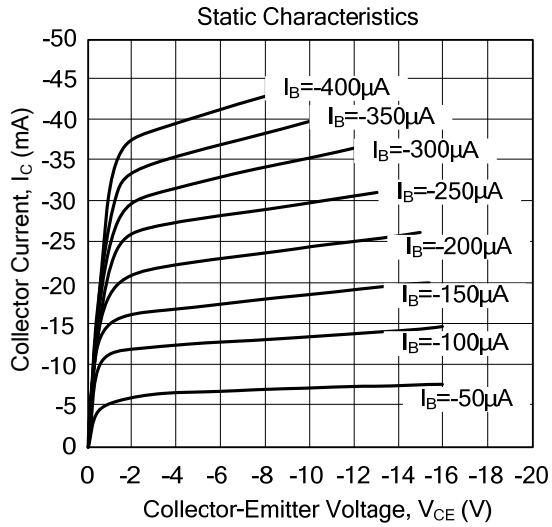
■ ELECTRICAL CHARACTERISTICS (Ta=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage	BV _{CEO}	I _C =-10mA, I _B =0	-65			V
			-45			V
			-30			V
Collector-Base Breakdown Voltage	BV _{CBO}	I _C =-100μA	-80			V
			-50			V
			-30			V
Emitter-Base Breakdown Voltage	BV _{EBO}	I _E =-10μA, I _C =0	-5.0			V
Collector Cut-Off Current	I _{CBO}	I _E = 0, V _{CB} = -30 V			-15	nA
DC Current Gain	h _{FE}	V _{CE} = -5V, I _C =2mA	110		800	
Collector-Emitter Saturation Voltage	V _{CE(SAT)}	I _C = -10mA, I _B = -0.5mA		-90	-300	mV
		I _C = -100mA, I _B = -5mA		-250	-650	mV
Base-Emitter Saturation Voltage	V _{BE(SAT)}	I _C = -10mA, I _B = -0.5mA		-700		mV
		I _C = -100mA, I _B = -5mA		-900		mV
Base-Emitter Turn-On Voltage	V _{BE(ON)}	V _{CE} = -5 V, I _C = -2mA	-600	-660	-750	mV
		V _{CE} = -5 V, I _C = -10mA			-800	mV
Current gain bandwidth product	f _T	V _{CE} = -5V, I _C = -10mA, f = 10MHz		150		MHz
Output Capacitance	C _{ob}	V _{CB} = -10V, I _E = 0, f = 1MHz			6	pF
Noise Figure	NF	V _{CE} = -5V, I _C = -200μA f = 1KHz, R _G = 2KΩ		2	10	dB

■ CLASSIFICATION OF h_{FE}

RANK	16	25	40
h _{FE}	110 - 220	200 - 450	420 - 800

TYPICAL CHARACTERISTICS



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