



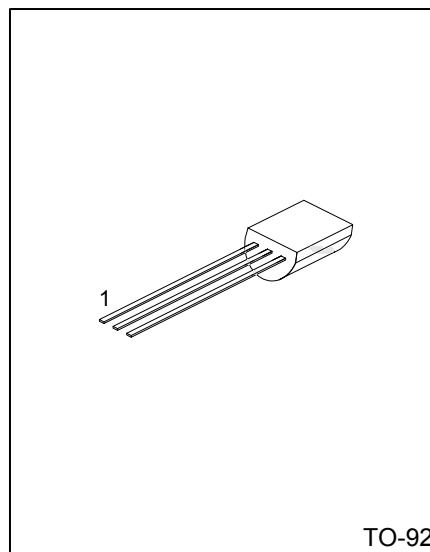
BC556/557/558

PNP SILICON TRANSISTOR

SWITCHING AND AMPLIFIER APPLICATIONS

■ FEATURES

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



■ 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

BC556L-x-T92-B	(1)Packing Type	(1) B: Tape Box, K: Bulk
	(2)Package Type	(2) T92: TO-92
	(3)Rank	(3) x: refer to Classification of h_{FE}
	(4)Lead Plating	(4) G: Halogen Free, L: Lead Free Plating, Blank: Pb/Sn

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

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage	BC556	V _{CBO}	-80	V
	BC557		-50	V
	BC558		-30	V
Collector-Emitter Voltage	BC556	V _{CEO}	-65	V
	BC557		-45	V
	BC558		-30	V
Emitter-Base Voltage		V _{EBO}	-5	V
Collector Current (DC)		I _C	-100	mA
Power Collector Dissipation		P _C	625	mW
Linear Derating Factor above (Ta=25°C)			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

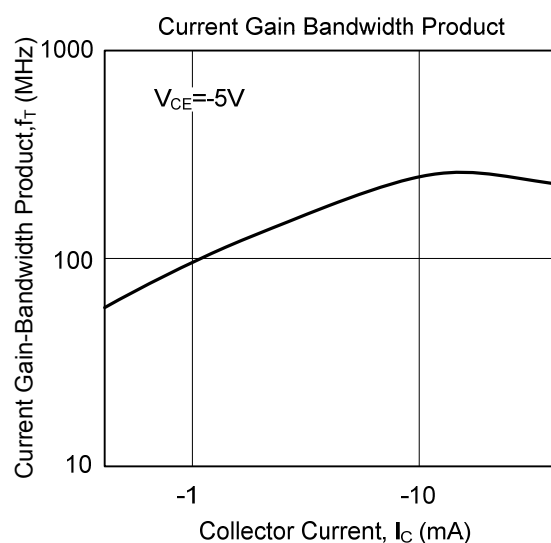
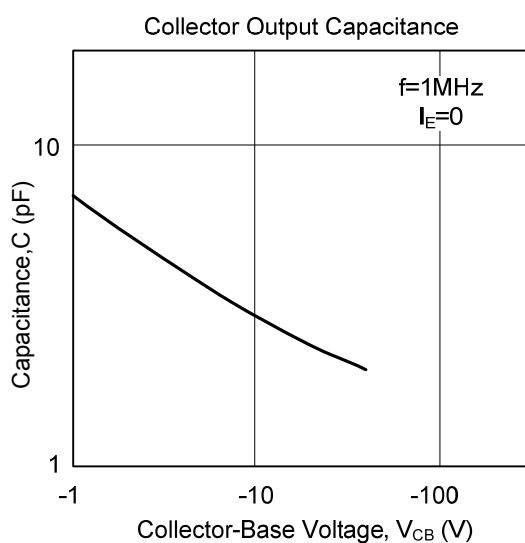
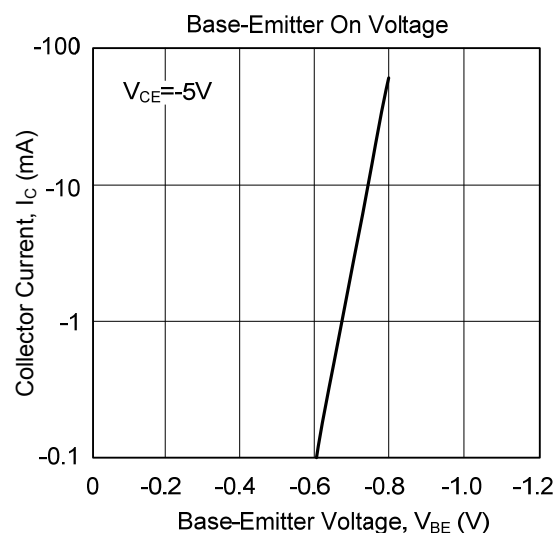
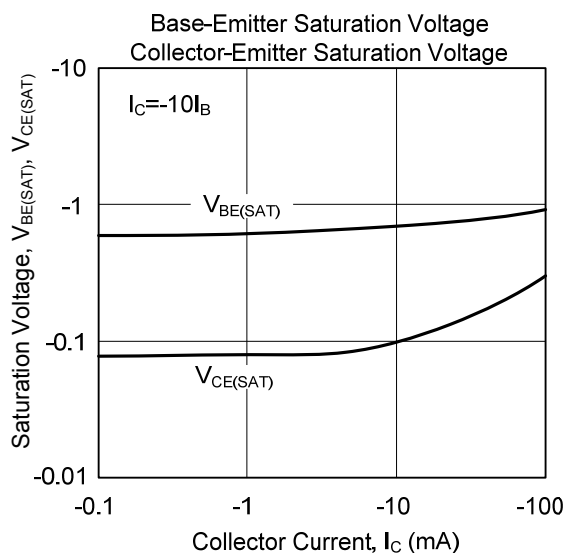
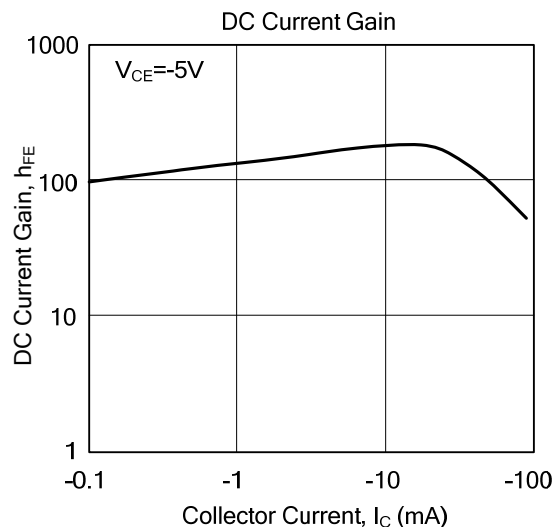
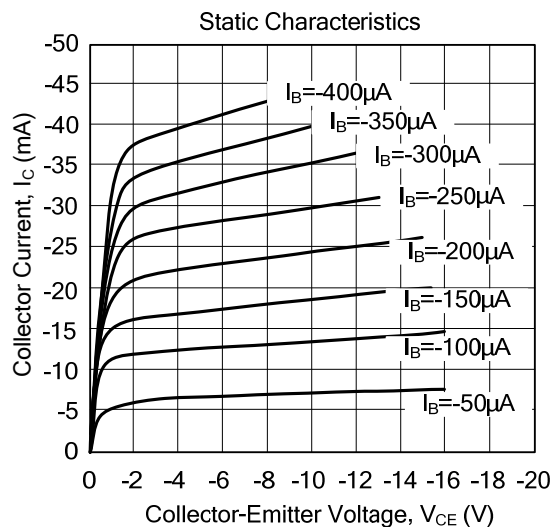
■ ELECTRICAL CHARACTERISTICS (Ta=25°C, unless otherwise specified)

PARAMETER		SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage	BC556	BV _{CEO}	I _C =-10mA, I _B =0	-65			V
	BC557			-45		V	
	BC558			-30		V	
Collector-Base Breakdown Voltage	BC556	BV _{CBO}	I _C =-100μA	-80			V
	BC557			-50		V	
	BC558			-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	A	B	C
h_{FE}	110 - 220	200 - 450	420 - 800

■ TYPICAL CHARACTERISTICS



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