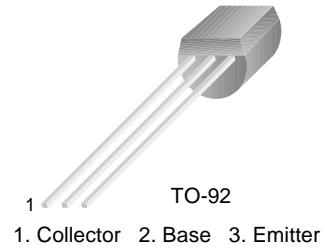


# BC327/328

## Switching and Amplifier Applications

- Suitable for AF-Driver stages and low power output stages
- Complement to BC337/BC338



## PNP Epitaxial Silicon Transistor

**Absolute Maximum Ratings**  $T_a=25^\circ\text{C}$  unless otherwise noted

Symbol	Parameter	Value	Units
$V_{CES}$	Collector-Emitter Voltage : BC327 : BC328	-50 -30	V
$V_{CEO}$	Collector-Emitter Voltage : BC327 : BC328	-45 -25	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current (DC)	-800	mA
$P_C$	Collector Power Dissipation	625	mW
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{STG}$	Storage Temperature	-55 ~ 150	$^\circ\text{C}$

**Electrical Characteristics**  $T_a=25^\circ\text{C}$  unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$BV_{CEO}$	Collector-Emitter Breakdown Voltage : BC327 : BC328	$I_C = -10\text{mA}$ , $I_B = 0$	-45 -25			V
$BV_{CES}$	Collector-Emitter Breakdown Voltage : BC327 : BC328	$I_C = -0.1\text{mA}$ , $V_{BE} = 0$	-50 -30			V
$BV_{EBO}$	Emitter-Base Breakdown Voltage	$I_E = -10\mu\text{A}$ , $I_C = 0$	-5			V
$I_{CES}$	Collector Cut-off Current : BC327 : BC328	$V_{CE} = -45\text{V}$ , $V_{BE} = 0$ $V_{CE} = -25\text{V}$ , $V_{BE} = 0$		-2 -2	-100 -100	nA
$h_{FE1}$ $h_{FE2}$	DC Current Gain	$V_{CE} = -1\text{V}$ , $I_C = -100\text{mA}$ $V_{CE} = -1\text{V}$ , $I_C = -300\text{mA}$	100 40		630	
$V_{CE}(\text{sat})$	Collector-Emitter Saturation Voltage	$I_C = -500\text{mA}$ , $I_B = -50\text{mA}$			-0.7	V
$V_{BE}(\text{on})$	Base-Emitter On Voltage	$V_{CE} = -1\text{V}$ , $I_C = -300\text{mA}$			-1.2	V
$f_T$	Current Gain Bandwidth Product	$V_{CE} = -5\text{V}$ , $I_C = -10\text{mA}$ , $f = 20\text{MHz}$		100		MHz
$C_{ob}$	Output Capacitance	$V_{CB} = -10\text{V}$ , $I_E = 0$ , $f = 1\text{MHz}$		12		pF

## $h_{FE}$ Classification

Classification	16	25	40
$h_{FE1}$	100 ~ 250	160 ~ 400	250 ~ 630
$h_{FE2}$	60-	100-	170-

## Typical Characteristics

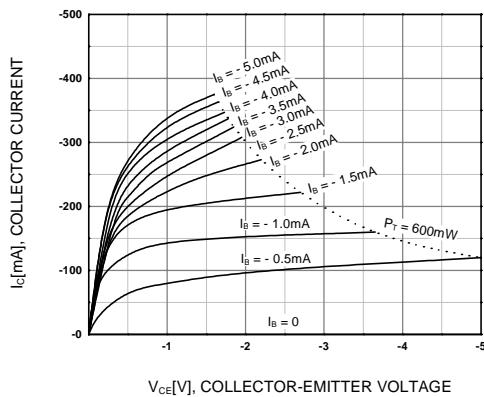


Figure 1. Static Characteristic

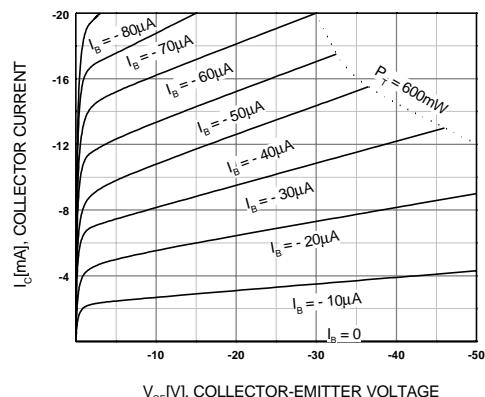


Figure 2. Static Characteristic

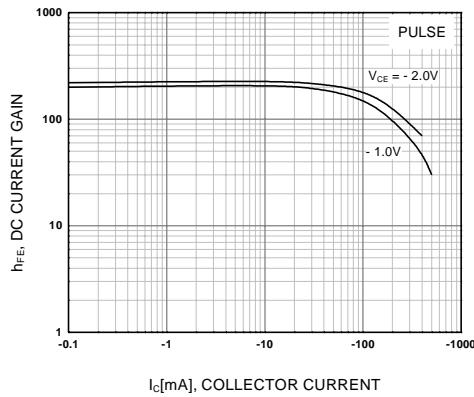


Figure 3. DC current Gain

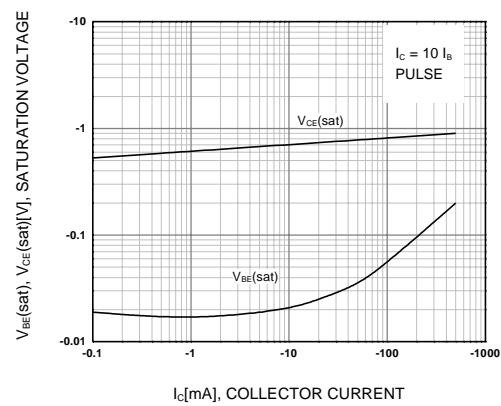


Figure 4. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

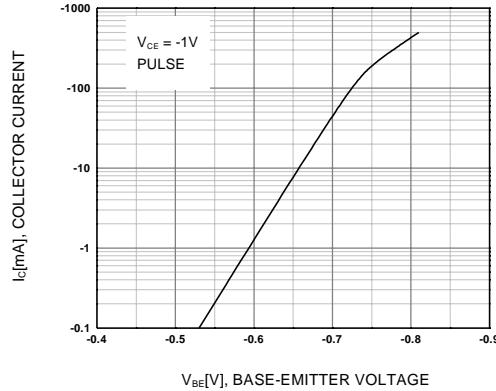


Figure 5. Base-Emitter On Voltage

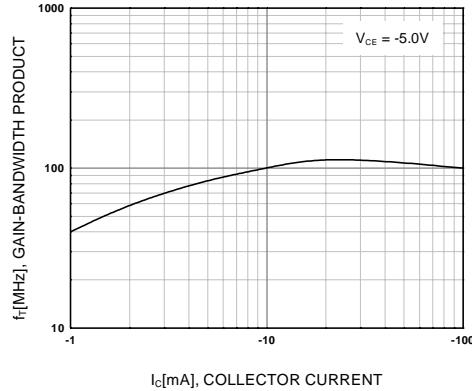
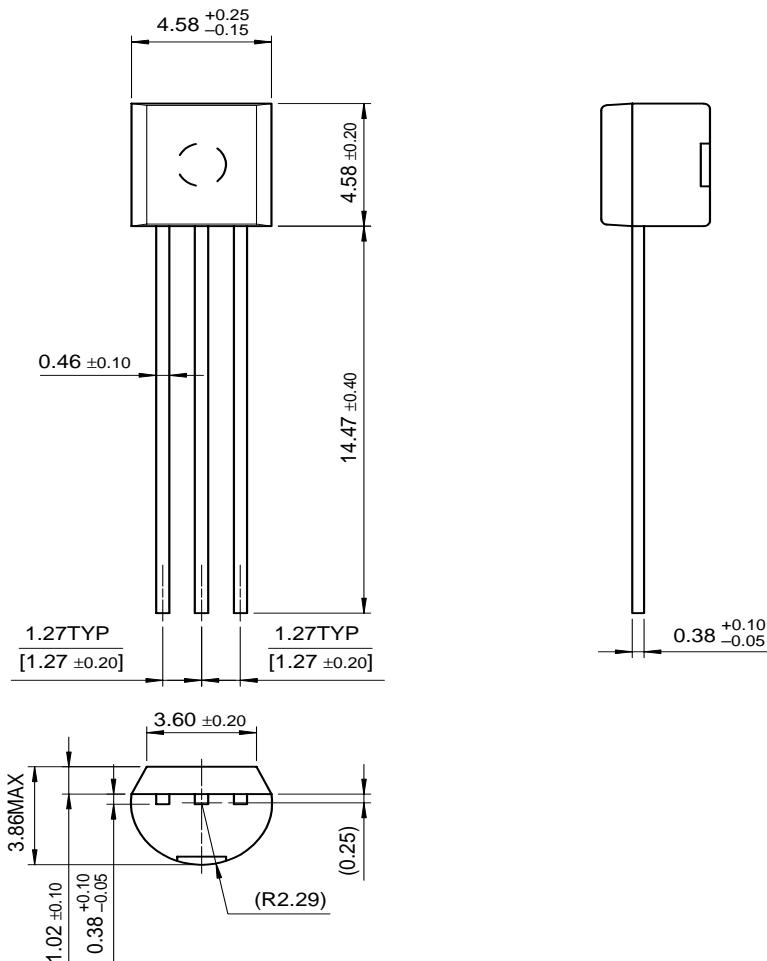


Figure 6. Gain Bandwidth Product

## Package Dimensions

TO-92



Dimensions in Millimeters

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CoolFET™	FASTr™	MicroFET™	PowerTrench®	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
DOME™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
EcoSPARK™	GTO™	MSX™	QT Optoelectronics™	TinyLogic™
E <sup>2</sup> CMOS™	HiSeC™	MSXPro™	Quiet Series™	TruTranslation™
EnSigna™	I <sup>2</sup> C™	OCX™	RapidConfigure™	UHC™
Across the board. Around the world.™		OCXPro™	RapidConnect™	UltraFET®
The Power Franchise™		OPTOLOGIC®	SILENT SWITCHER®	VCX™
Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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