



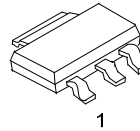
## PZT4033

### PNP SILICON TRANSISTOR

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### DESCRIPTION

The UTC **PZT4033** designed for high current general purpose amplifier applications.



SOT-223

### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
PZT4033L-AA3-R	PZT4033G-AA3-R	SOT-223	B	C	E	Tape Reel

<p>PZT4033L-AA3-R</p> <p>(1)Packing Type (2)Package Type (3)Lead Free</p>	<p>(1) R: Tape Reel (2) AA3: SOT-223 (3) G: Halogen Free, L: Lead Free</p>
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■ ABSOLUTE MAXIMUM RATINGS ( $T_A=25^\circ\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	-80	V
Collector-Emitter Voltage	$V_{CEO}$	-80	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Power Dissipation	$P_D$	2	W
Collector Current	$I_C$	-1	A
Junction Temperature	$T_J$	-65 ~ +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.

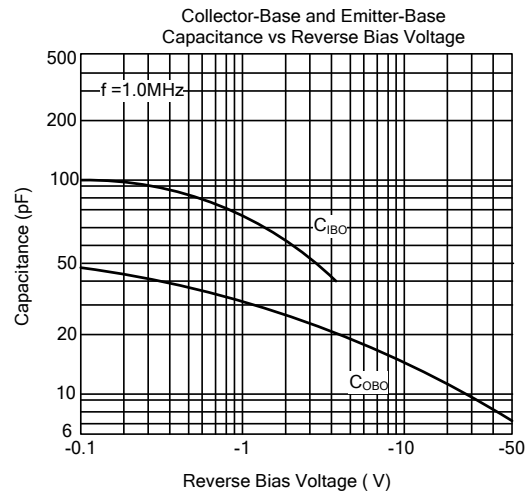
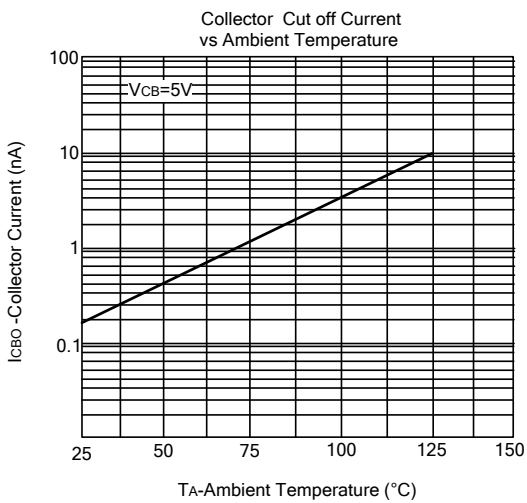
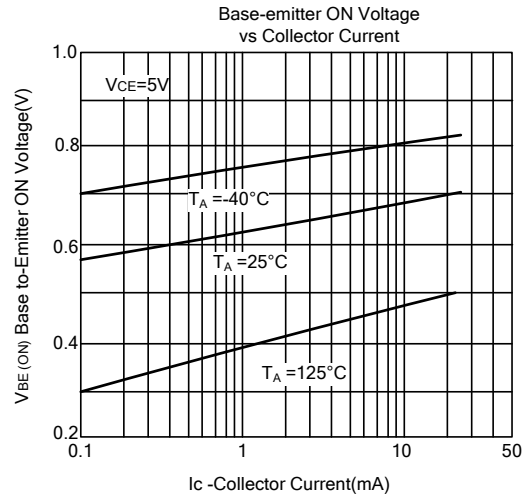
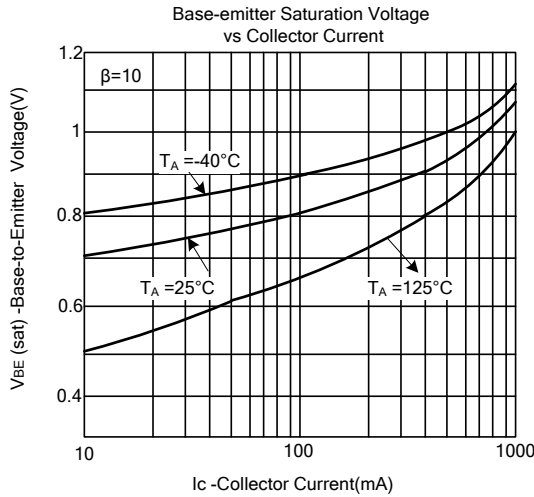
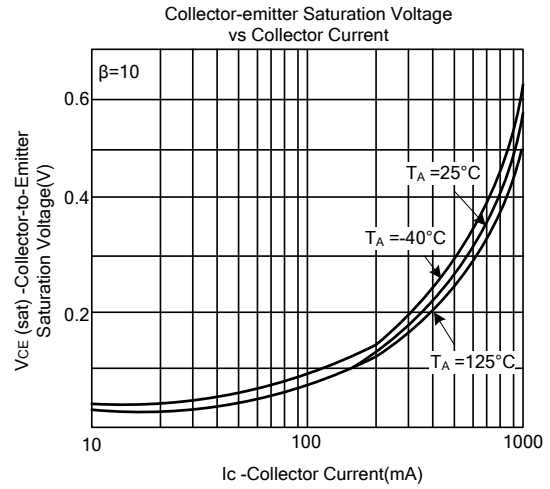
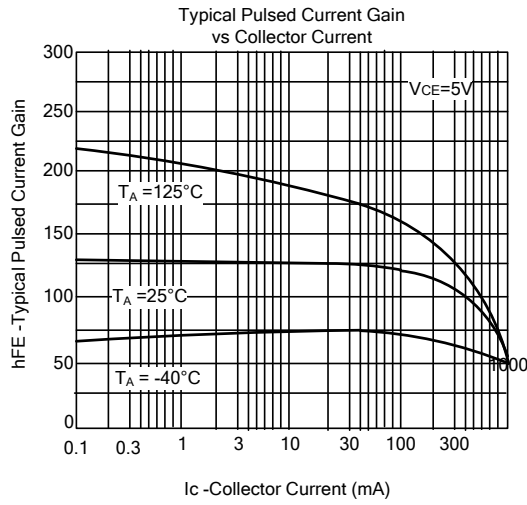
■ THERMAL DATA

PARAMETER	SYMBOL	RATING	UNIT
Junction to Ambient	$\theta_{JA}$	62.5	$^\circ\text{C}/\text{W}$

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT	
Collector-Base Breakdown Voltage	$BV_{CBO}$	$I_C=-10\mu\text{A}, I_E=0$	-80			V	
Collector-Emitter Breakdown Voltage	$BV_{CEO}$	$I_C=-10\text{mA}, I_B=0$	-80			V	
Emitter-Base Breakdown Voltage	$BV_{EBO}$	$I_E=-10\mu\text{A}, I_C=0$	-5			V	
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=-60\text{V}, I_E=0$			-50	nA	
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=-5\text{V}, I_C=0$			-10	nA	
DC Current Gain	$h_{FE}$	$V_{CE}=-5\text{V}, I_C=-0.1\text{mA}$	75				
		$V_{CE}=-5\text{V}, I_C=-100\text{mA}$	100		300		
		$V_{CE}=-5\text{V}, I_C=-500\text{mA}$	70				
		$V_{CE}=-5\text{V}, I_C=-1\text{A}$	25				
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=-150\text{mA}, I_B=-15\text{mA}$			-0.15	V	
		$I_C=-500\text{mA}, I_B=-50\text{mA}$			-0.5		
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_C=-150\text{mA}, I_B=-15\text{mA}$			-0.9	V	
		$I_C=-500\text{mA}, I_B=-50\text{mA}$			-1.1		
Gain Bandwidth Product	f	$V_{CE}=-10\text{V}, I_C=-50\text{mA}, f=1\text{MHz}$	100			MHz	
Output Capacitance	$C_{OB}$	$V_{CB}=-10\text{V}, I_E=0, f=1\text{MHz}$			20	pF	
Input Capacitance	$C_{IB}$	$V_{EB}=-0.5\text{V}, I_C=0, f=1\text{MHz}$			110	pF	
Switching Time	Turn-on Time	$t_{ON}$	$I_C=-500\text{mA}, V_{CE}=-30\text{V},$ $I_{B1}= I_{B2}=-50\text{mA}$			100	ns
	Storage Time	$t_{STG}$				350	ns
	Fall Time	$t_F$				50	ns

## TYPICAL CHARACTERISTICS



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