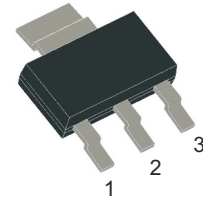


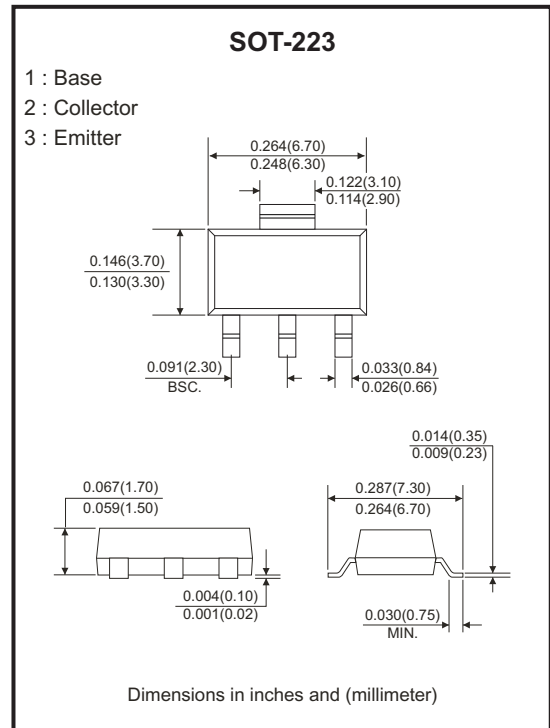
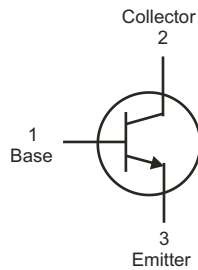
## PZTA44-G (NPN) RoHS Device



### Features

- High collector-emitter voltage.
- Low current.

### Diagram



### Maximum Ratings (at TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-base voltage	$V_{CBO}$	400	V
Collector-emitter voltage	$V_{CEO}$	400	V
Emitter-base voltage	$V_{EBO}$	6	V
Collector current-continuous	$I_C$	200	mA
Collector current-pulsed	$I_{CM}$	300	mA
Collector power dissipation	$P_C$	1	W
Junction temperature range	$T_J$	150	°C
Storage temperature range	$T_{STG}$	-65 to +150	°C

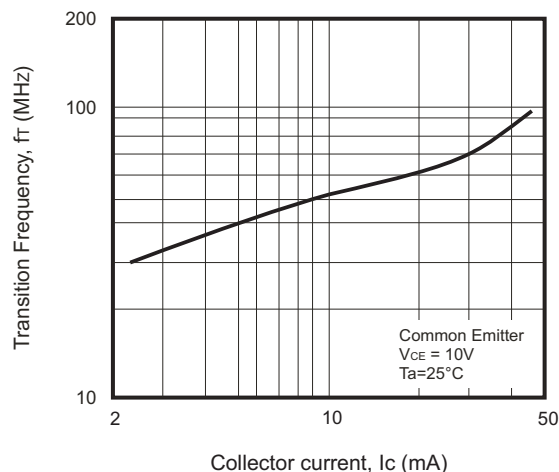
## Electrical Characteristics (Ta=25°C, unless otherwise specified)

Parameter	Conditions	Symbol	Min.	Max.	Unit
Collector-base breakdown voltage	$I_C=100\mu A, I_E=0$	$V_{(BR)CBO}$	400		V
Collector-emitter breakdown voltage	$I_C=1mA, I_B=0$	$V_{(BR)CEO}^*$	400		V
Emitter-base breakdown voltage	$I_E=100\mu A, I_C=0$	$V_{(BR)EBO}$	6		V
Collector cut-off current	$V_{CB}=400V, I_E=0$	$I_{CBO}$		0.1	$\mu A$
Emitter cut-off current	$V_{EB}=4V, I_C=0$	$I_{EBO}$		0.1	$\mu A$
DC current gain	$V_{CE}=10V, I_C=1mA$	$h_{FE(1)}^*$	40		
	$V_{CE}=10V, I_C=10mA$	$h_{FE(2)}^*$	50	200	
	$V_{CE}=10V, I_C=50mA$	$h_{FE(3)}^*$	45		
	$V_{CE}=10V, I_C=100mA$	$h_{FE(4)}^*$	40		
Collector-emitter saturation voltage	$I_C=1mA, I_B=0.1mA$	$V_{CE(sat)1}^*$		0.4	V
	$I_C=10mA, I_B=1mA$	$V_{CE(sat)2}^*$		0.5	V
	$I_C=50mA, I_B=5mA$	$V_{CE(sat)3}^*$		0.75	V
Base-emitter saturation voltage	$I_C=10mA, I_B=1mA$	$V_{BE(sat)}^*$		0.75	V
Transition frequency	$V_{CE}=10V, I_C=10mA, f=100MHz$	$f_T$	20		MHz
Collector capacitance	$V_{CB}=20V, I_E=0, f=1MHz$	$C_C$		7	pF
Emitter capacitance	$V_{EB}=0.5V, I_C=0, f=1MHz$	$C_e$		130	pF

\*Pulse test: pulse width 300 $\mu s$ , duty cycle 2.0%

## RATING AND CHARACTERISTIC CURVES (PZTA44-G)

Fig.1 -  $f_T$  —  $I_C$



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## RATING AND CHARACTERISTIC CURVES (PZTA44-G)

Fig.2 - Static Characteristic

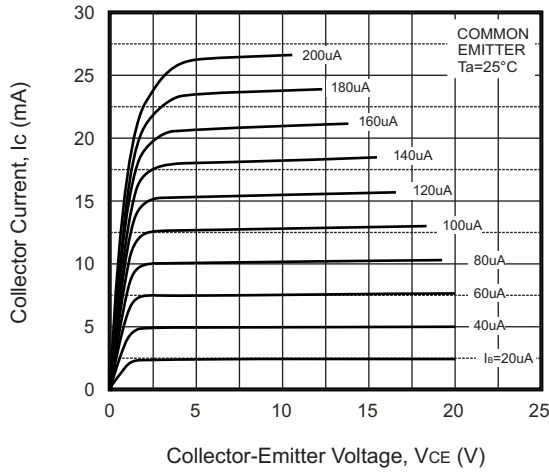


Fig.3 -  $h_{FE} - I_c$

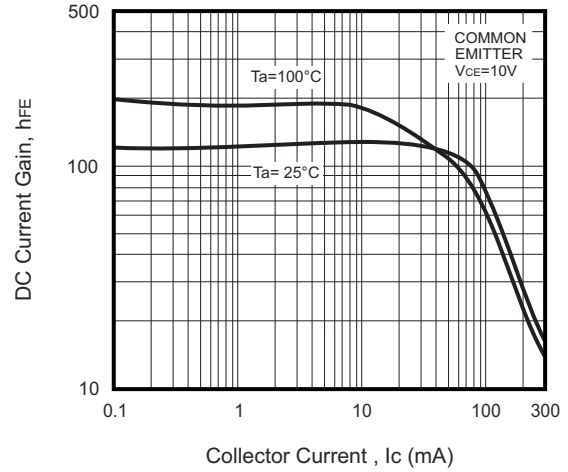


Fig.4 -  $V_{BEsat} - I_c$

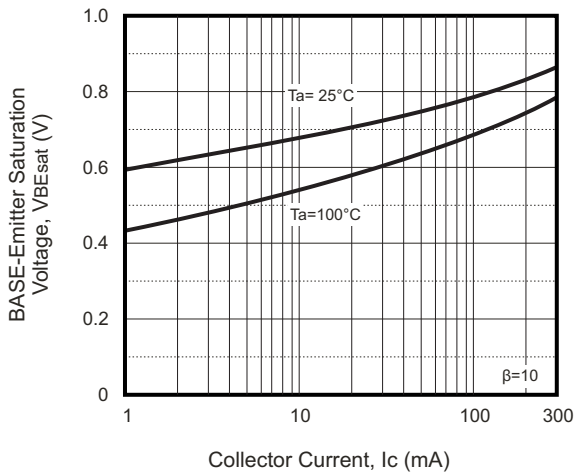


Fig.5 -  $V_{CEsat} - I_c$

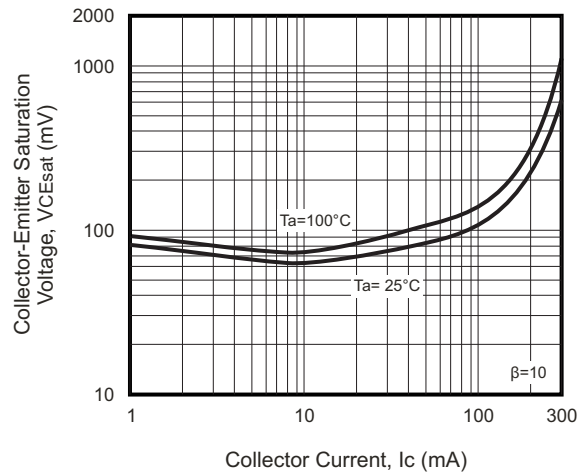


Fig.6 -  $C_{ob}/C_{ib} - V_{CB}/V_{EB}$

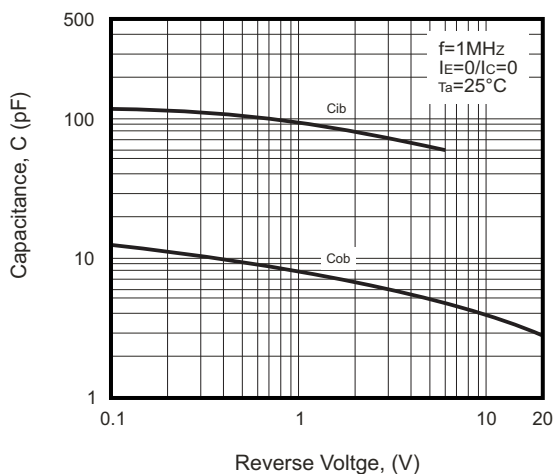
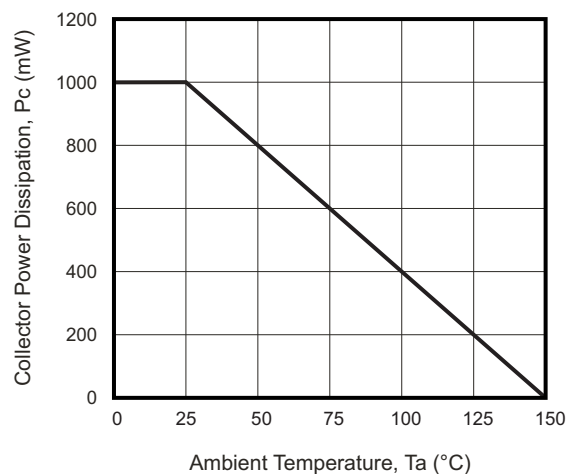


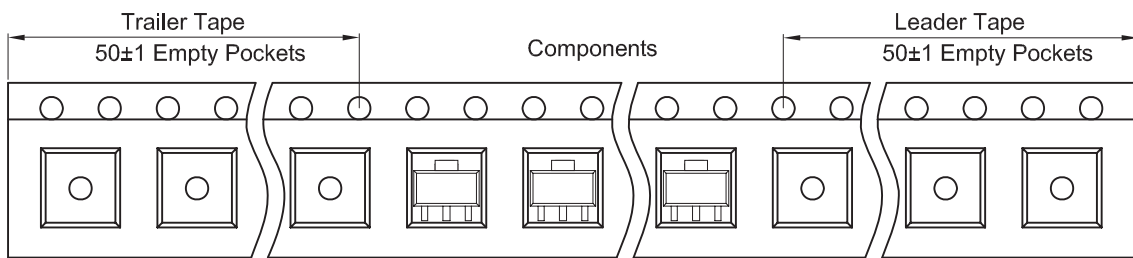
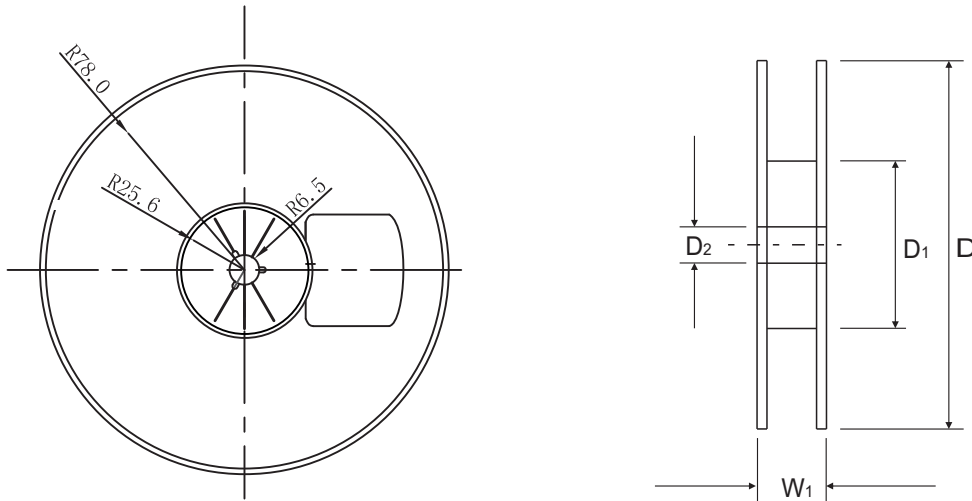
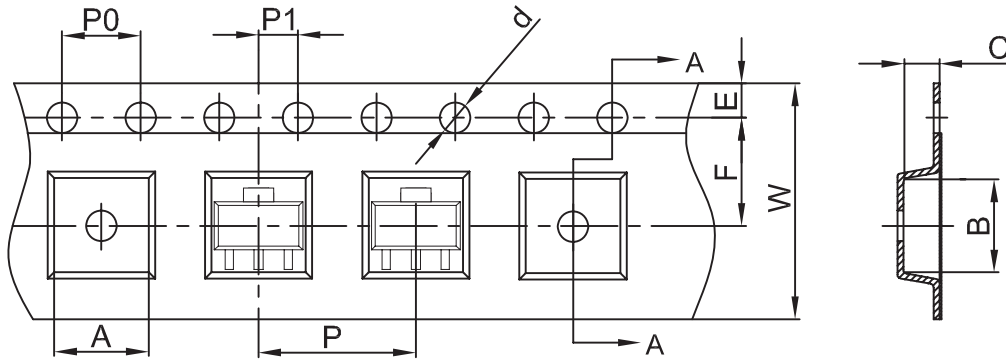
Fig.7 -  $P_c - T_a$



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REV: A

## Reel Taping Specification



SOT-223	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	6.765 ± 0.10	7.335 ± 0.10	1.88 ± 0.10	1.50 ± 0.10	180.00 ± 1.00	60.00 ± 1.00	13.00 ± 1.00
	(inch)	0.266 ± 0.004	0.289 ± 0.004	0.074 ± 0.004	0.059 ± 0.004	7.087 ± 0.039	2.362 ± 0.039	0.512 ± 0.039

SOT-223	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	5.50 ± 0.10	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	12.00 ± 0.10	16.50 ± 1.00
	(inch)	0.069 ± 0.004	0.217 ± 0.004	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.472 ± 0.004	0.650 ± 0.039

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REV: A