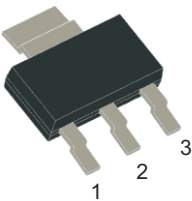


PZTA44-HF (NPN)

RoHS Device
Halogen Free



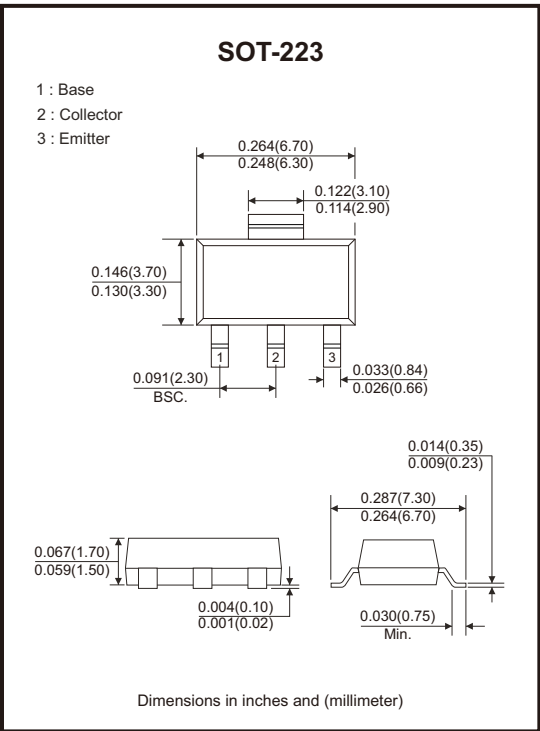
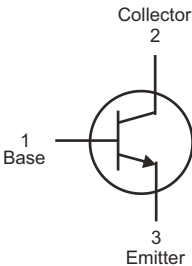
Features

- Low current.
- High voltage.
- Epitaxial planar die construction.

Mechanical Data

- Case: SOT-223, molded plastic.
- Mounting position: Any.

Circuit Diagram



Maximum Ratings (at T_A=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
Operation junction and storage temperature range	T _J , T _{STG}	-55 to +150	°C

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

Parameter	Conditions	Symbol	Min.	Typ.	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	μA
Emitter cut-off current	$V_{EB} = 4V, I_C = 0$	I_{EBO}			0.1	μA
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	$I_C = 1mA, I_B = 0.1mA$	$V_{CE(sat)}$			0.4	V
	$I_C = 10mA, I_B = 1mA$	$V_{CE(sat)}$			0.5	V
	$I_C = 50mA, I_B = 5mA$	$V_{CE(sat)}$			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

Rating and Characteristic Curves (PZTA44-HF)

Fig.1 - Static Characteristic

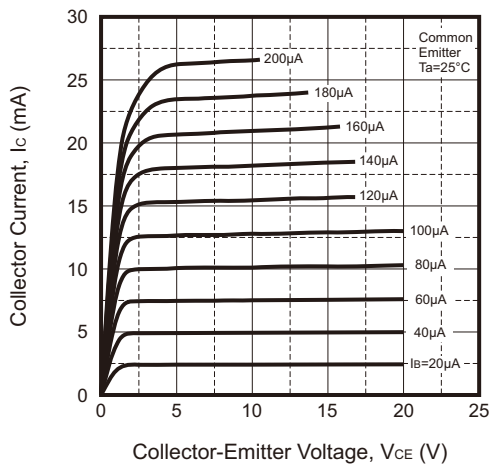
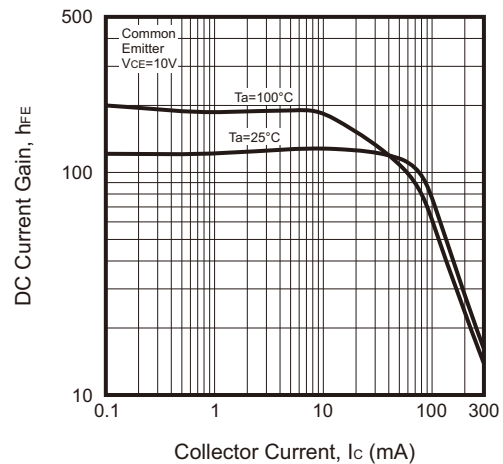


Fig.2 - $h_{FE} — I_C$



Rating and Characteristic Curves (PZTA44-HF)

Fig.3 - V_{BEsat} — I_c

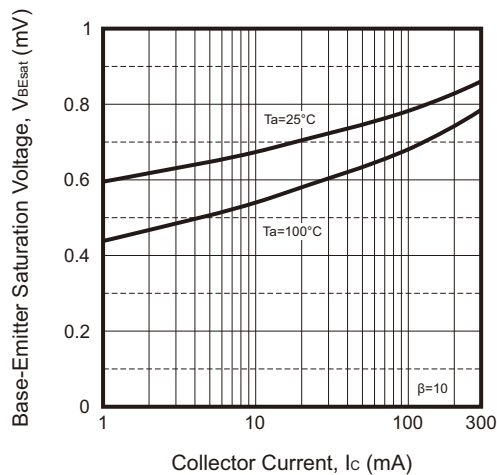


Fig.4 - V_{CEsat} — I_c

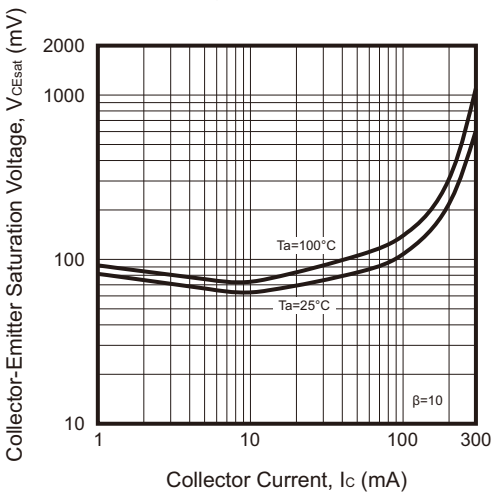


Fig.5 - P_c — T_A

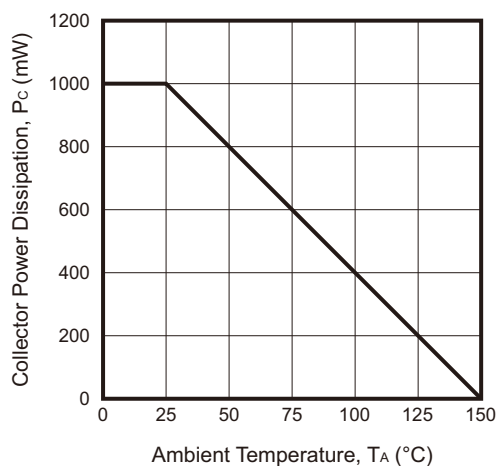


Fig.6 - C_{ob}/C_{ib} — V_{CB}/V_{EB}

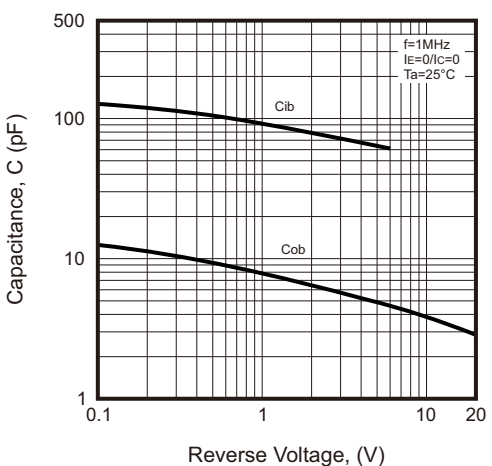
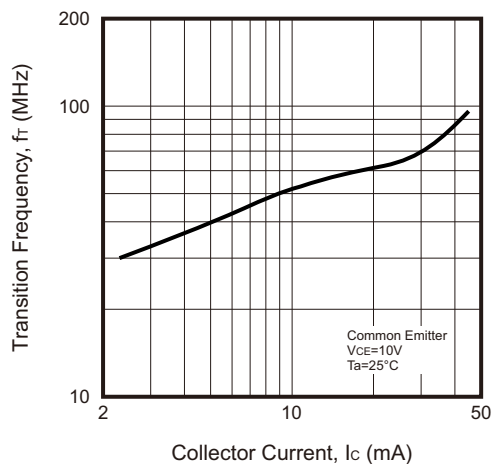
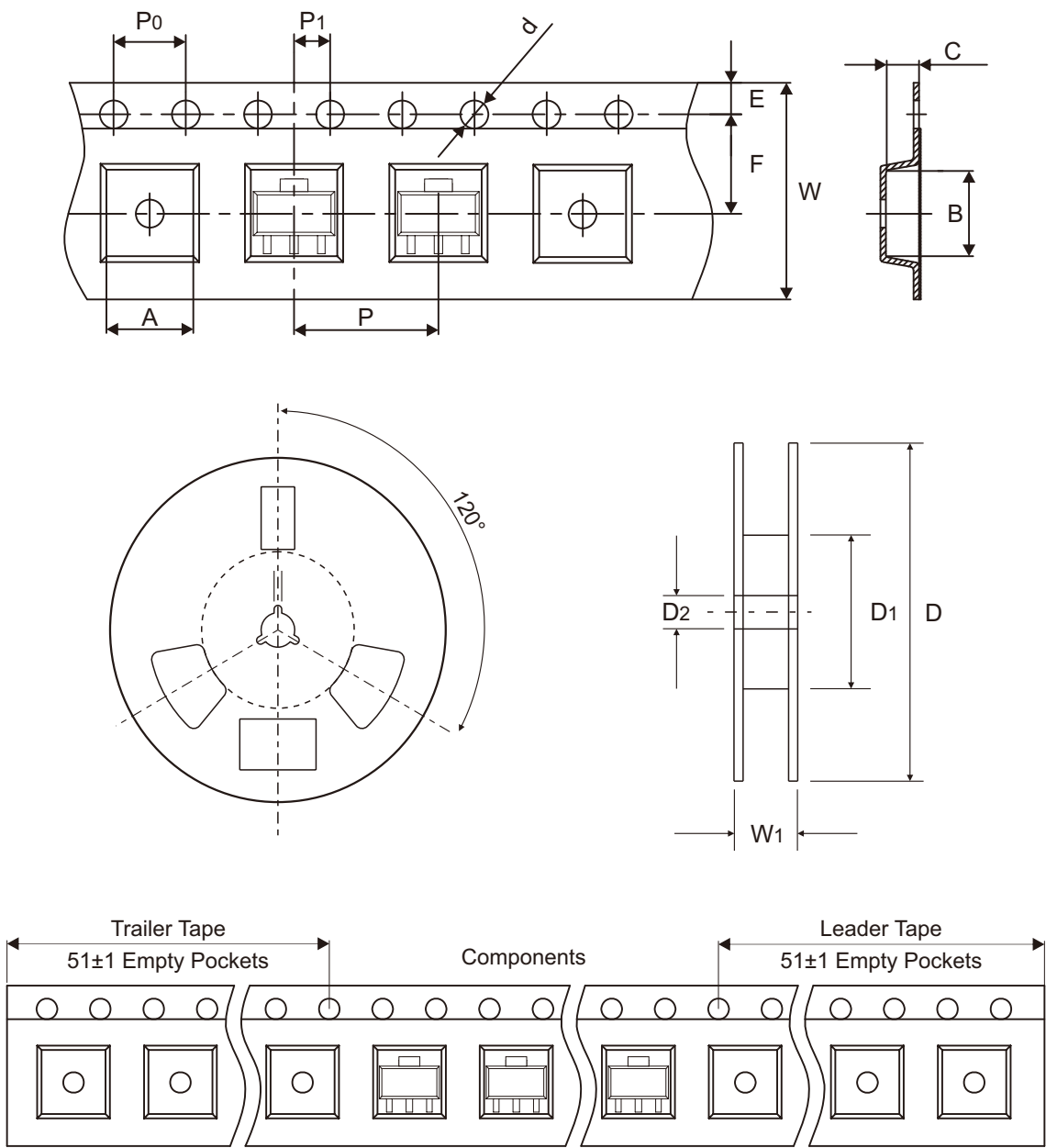


Fig.7 - f_T — I_c



Reel Taping Specification

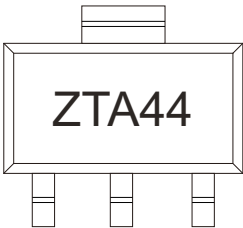


SOT-223	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	6.765 ± 0.10	7.335 ± 0.10	1.88 ± 0.10	1.50 ± 0.10	330.00 ± 1.00	100.00 ± 1.00	13.00 ± 1.00
	(inch)	0.266 ± 0.004	0.289 ± 0.004	0.074 ± 0.004	0.059 ± 0.004	12.992 ± 0.039	3.937 ± 0.039	0.512 ± 0.039

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	17.60 ± 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	0.693 ± 0.039

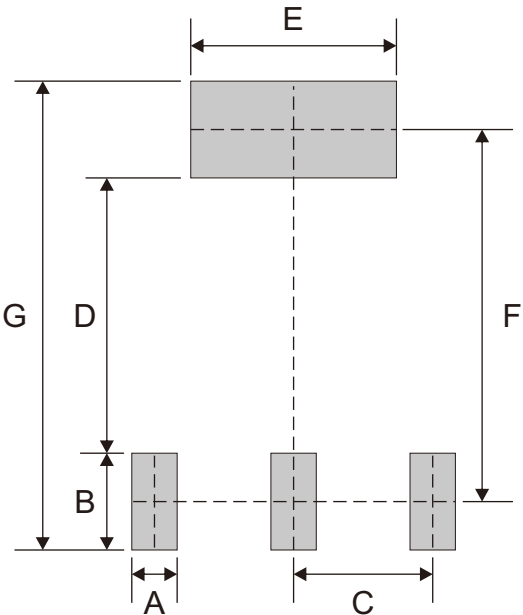
Marking Code

Part Number	Marking Code
PZTA44-HF	ZTA44



Suggested P.C.B. PAD Layout

SIZE	SOT-223	
	(mm)	(inch)
A	0.75	0.030
B	1.60	0.063
C	2.30	0.091
D	4.55	0.179
E	3.40	0.134
F	6.15	0.242
G	7.75	0.305



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOT-223	2,500	13