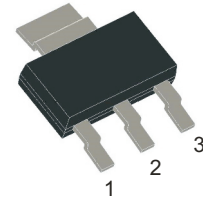


CTSPZTA92-G (PNP)

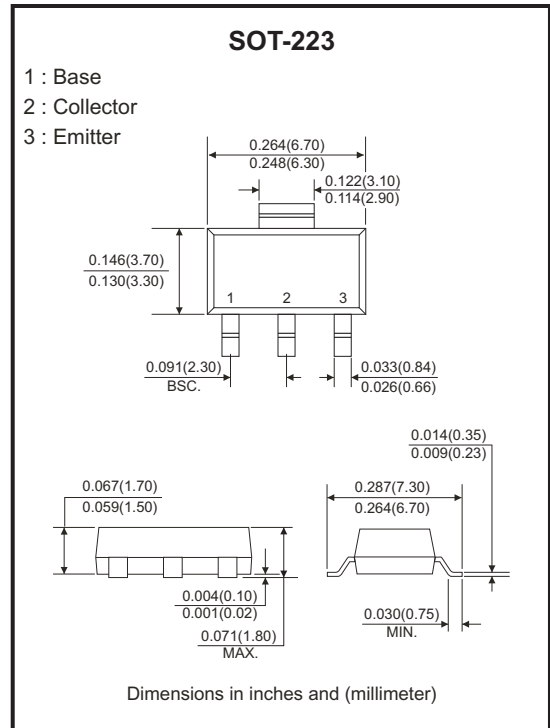
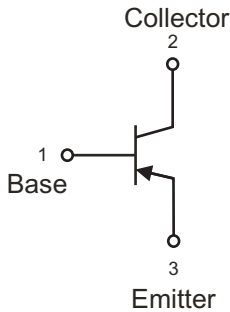
RoHS Device



Features

- High voltage driver applications

Circuit diagram



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

Parameter	Symbol	Value	Unit
Collector-base voltage	V_{CBO}	-300	V
Collector-emitter voltage	V_{CEO}	-300	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current-continuous	I_C	-0.2	A
Collector current-pulsed	I_{CM}	-0.5	A
Collector power dissipation	P_C	1	W
Thermal resistance from junction to ambient	$R_{\theta JA}$	125	°C/W
Junction temperature	T_J	150	°C
Storage temperature range	T_{STG}	-55 to +150	°C

Electrical Characteristics (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min.	Max.	Unit
Collector-base breakdown voltage	$I_C=-0.1\text{mA}$, $I_E=0$	$V_{(BR)CBO}$	-300		V
Collector-emitter breakdown voltage	$I_C=-1\text{mA}$, $I_B=0$	$V_{(BR)CEO}$	-300		V
Emitter-base breakdown voltage	$I_E=-0.1\text{mA}$, $I_C=0$	$V_{(BR)EBO}$	-5		V
Collector cut-off current	$V_{CB}=-200\text{V}$, $I_E=0$	I_{CBO}		-250	nA
Emitter cut-off current	$V_{EB}=-3\text{V}$, $I_C=0$	I_{EBO}		-100	nA
DC current gain	$V_{CE}=-10\text{V}$, $I_C=-1\text{mA}$	$h_{FE(1)}$	25		
	$V_{CE}=-10\text{V}$, $I_C=-10\text{mA}$	$h_{FE(2)}$	40		
	$V_{CE}=-10\text{V}$, $I_C=-30\text{mA}$	$h_{FE(3)}$	25		
Collector-emitter saturation voltage	$I_C=-20\text{mA}$, $I_B=-2\text{mA}$	$V_{CE(sat)}$		-0.5	V
Base-emitter saturation voltage	$I_C=-20\text{mA}$, $I_B=-2\text{mA}$	$V_{BE(sat)}$		-0.9	V
Transition frequency	$V_{CE}=-20\text{V}$, $I_C=-10\text{mA}$, $f=100\text{MHz}$	f_T	50		MHz
Collector output capacitance	$V_{CB}=-20\text{V}$, $I_E=0$, $f=1\text{MHz}$	C_{ob}		6	pF

RATING AND CHARACTERISTIC CURVES (CTSPZTA92-G)

Fig.1 - Static Characteristic

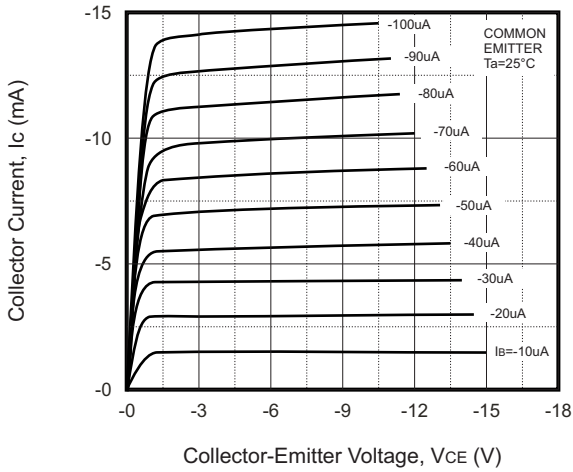


Fig.2 - $h_{FE} - I_c$

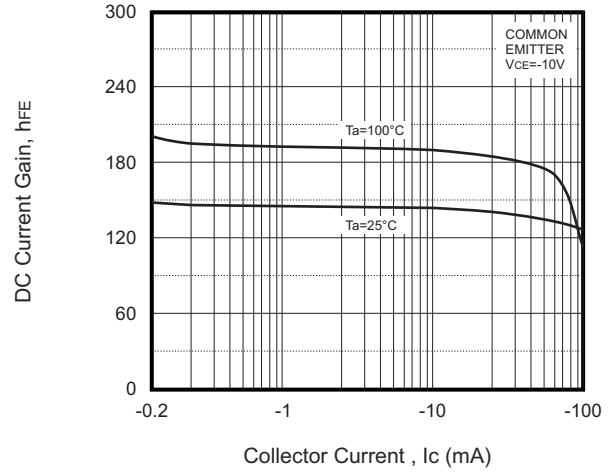


Fig.3 - $V_{CEsat} - I_c$

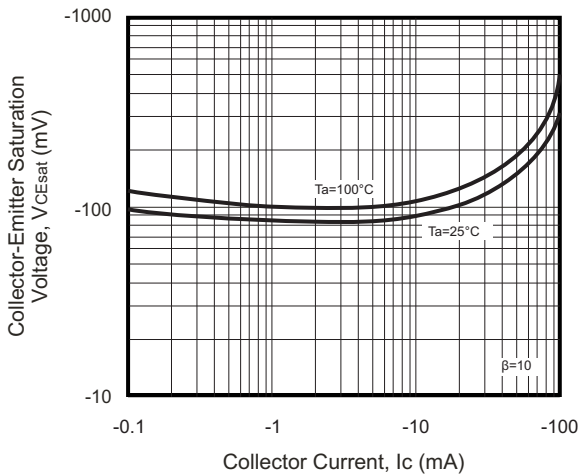


Fig.4 - $V_{BEsat} - I_c$

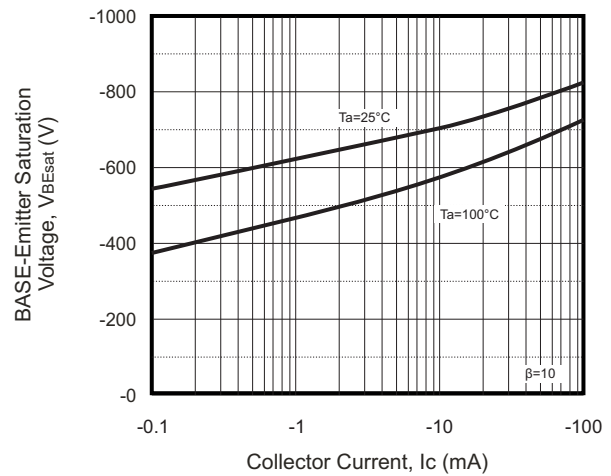


Fig.5 - $I_c - V_{BE}$

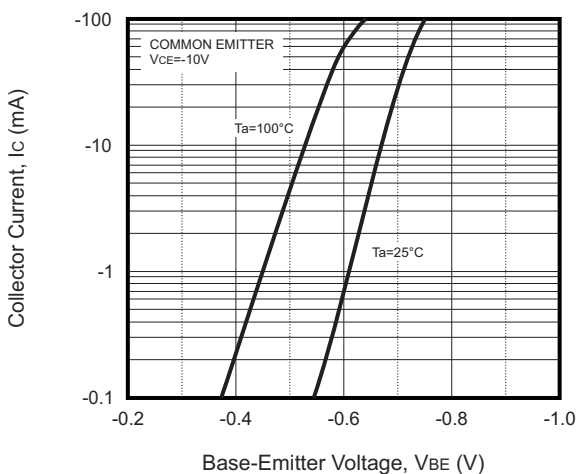
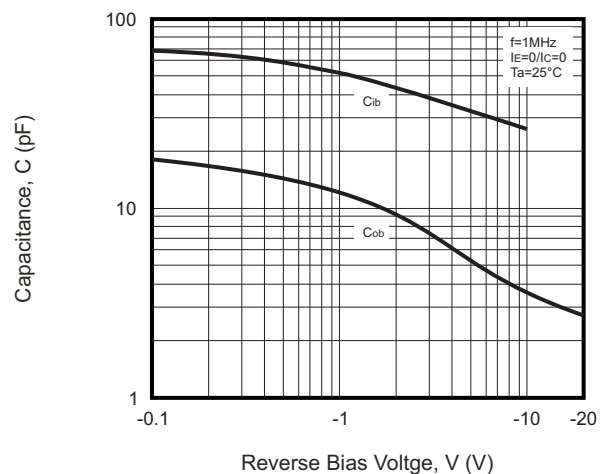


Fig.6 - $C_{ob}/C_{ib} - V_{CB}/V_{EB}$



RATING AND CHARACTERISTIC CURVES (CTSPZTA92-G)

Fig.7 - f_r — I_c

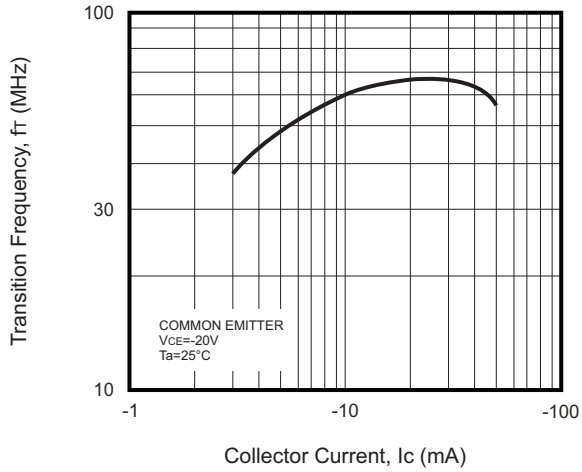
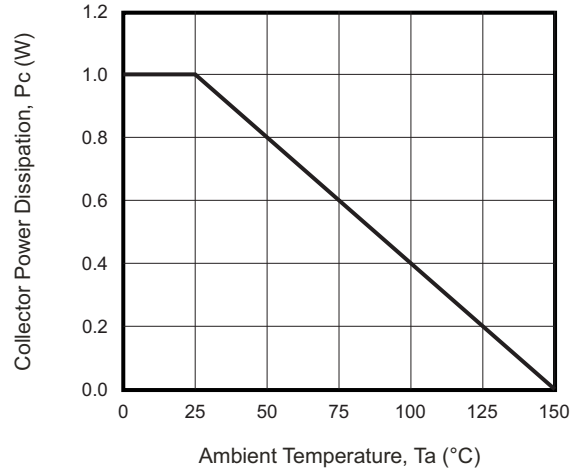
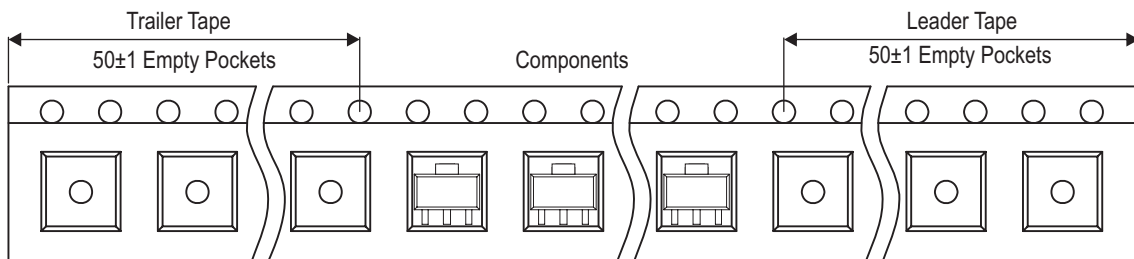
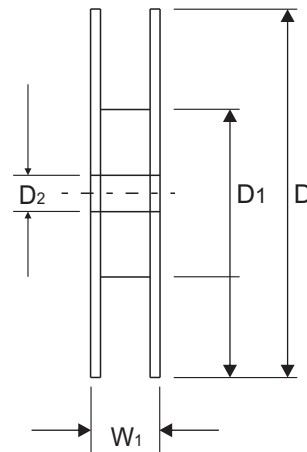
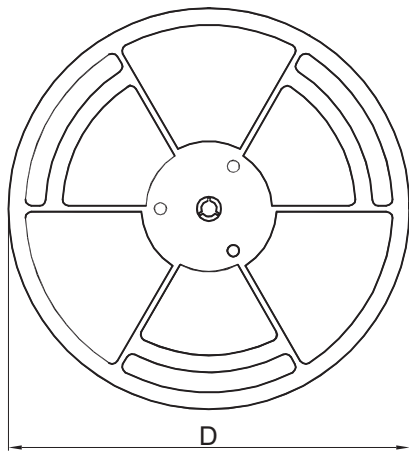
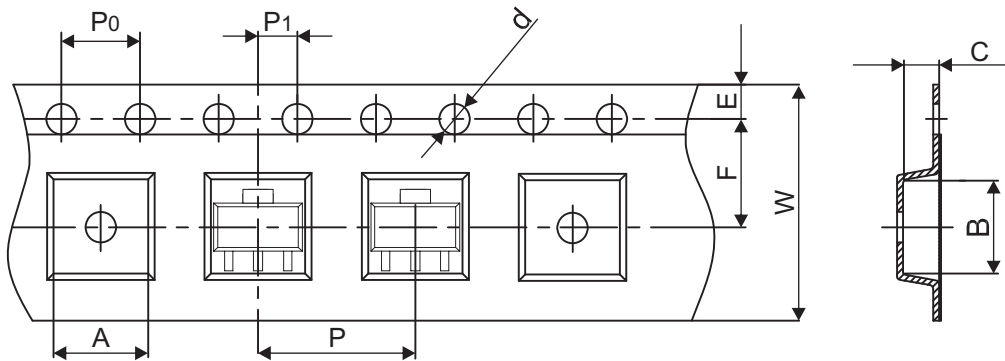


Fig.8 - P_c — T_a



Reel Taping Specification



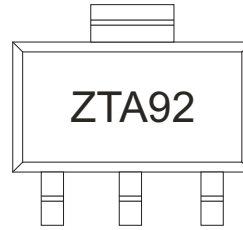
SOT-223	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	6.765 ± 0.10	7.335 ± 0.10	1.88 ± 0.10	1.50 ± 0.10	330.00 ± 1.00	100.00 ± 1.00	13.00 ± 1.00
	(inch)	0.266 ± 0.004	0.289 ± 0.004	0.074 ± 0.004	0.059 ± 0.004	12.992 ± 0.039	3.937 ± 0.039	0.512 ± 0.039

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

Company reserves the right to improve product design, functions and reliability without notice.

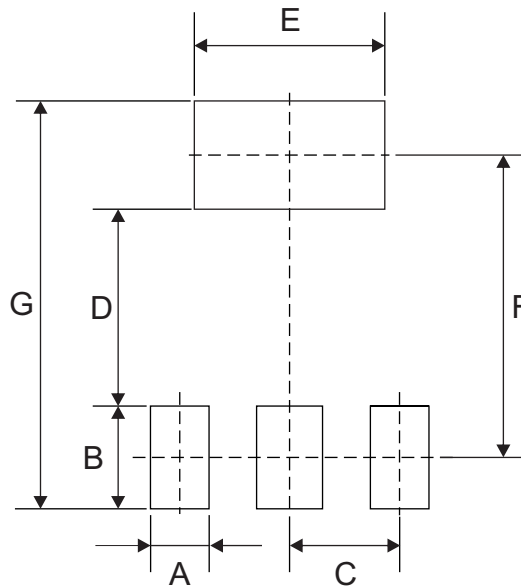
Marking Code

Part Number	Marking Code
CTSPZTA92-G	ZTA92



Suggested 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