



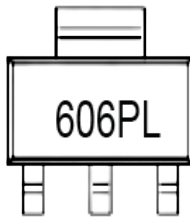
SOT-223 Plastic-Encapsulate Transistors

CJZ606PL TRANSISTOR (PNP)

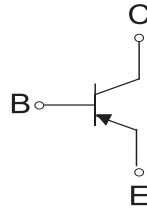
FEATURES

- Low Saturation Voltage
- High Speed Switching

MARKING: 606PL

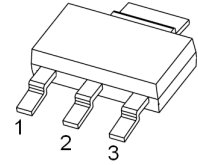


Equivalent Circuit



SOT-223

1. BASE
2. COLLECTOR
3. EMITTER



MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	-100	V
V _{CEO}	Collector-Emitter Voltage	-60	V
V _{EBO}	Emitter-Base Voltage	-7	V
I _c	Collector Current	-6	A
P _c ^①	Collector Power Dissipation	2	W
R _{θJA} ^①	Thermal Resistance From Junction To Ambient	62.5	°C/W
R _{θJC} ^②	Thermal Resistance from Junction to Case	15	°C/W
T _J , T _{STG}	Operation Junction and Storage Temperature Range	-55~+150	°C

ELECTRICAL CHARACTERISTICS

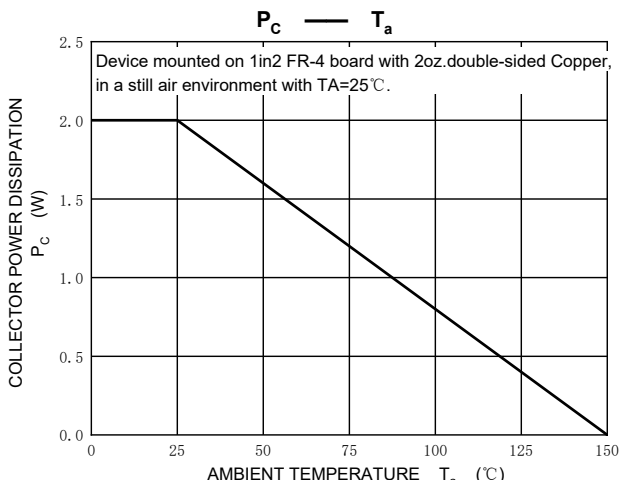
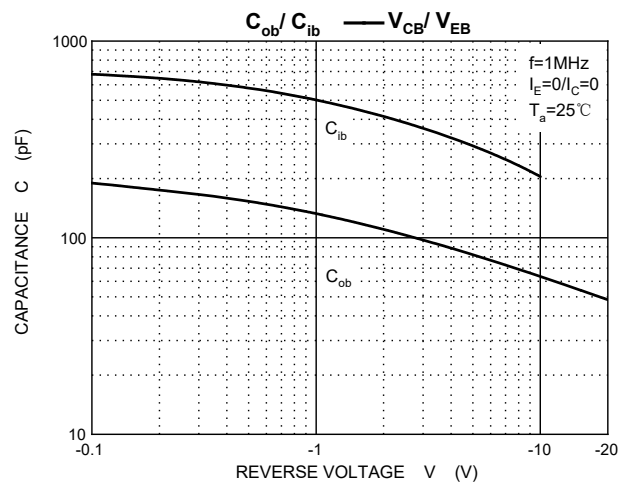
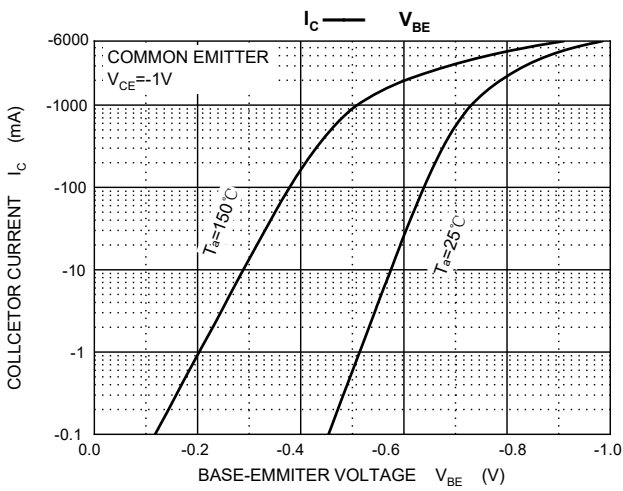
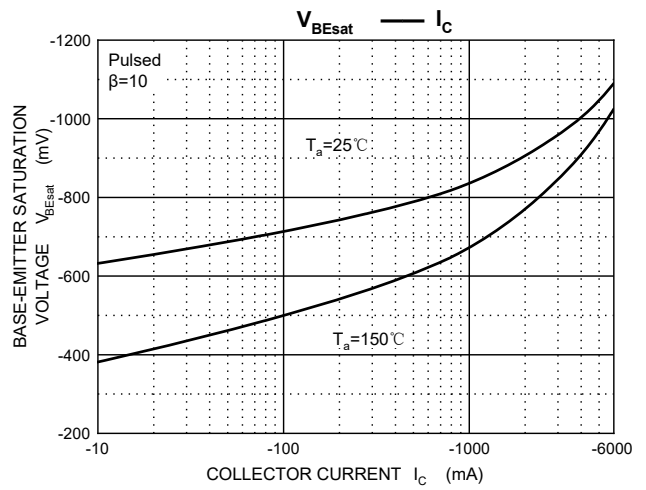
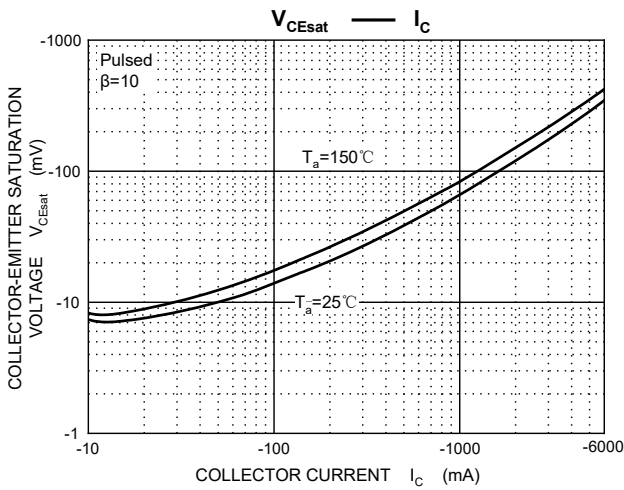
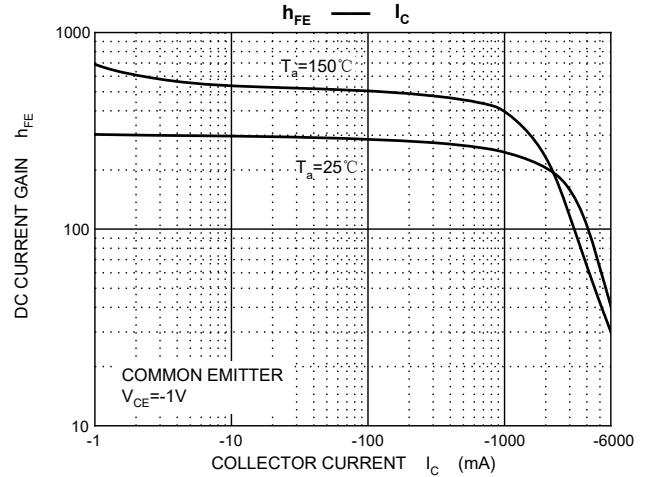
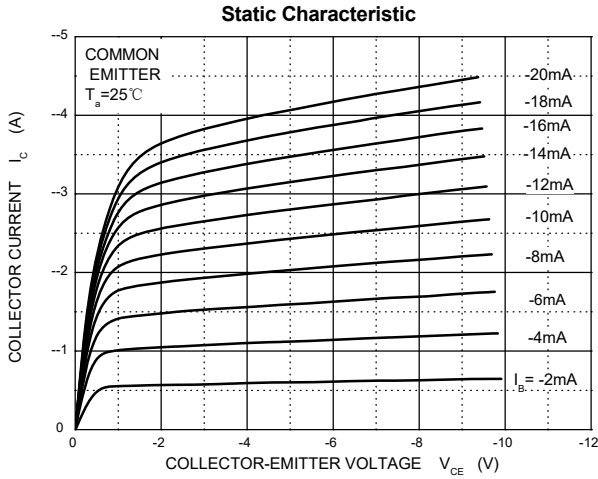
$T_a=25\text{ }^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -0.1\text{mA}, I_E = 0$	-100			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -10\text{mA}, I_B = 0$	-60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -0.1\text{mA}, I_C = 0$	-7			V
Collector cut-off current	I_{CBO}	$V_{CB} = -80\text{V}, I_E = 0$			-20	nA
Collector cut-off current	I_{CEO}	$V_{CE} = -48\text{V}, I_B = 0$			-10	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -6\text{V}, I_C = 0$			-10	nA
DC current gain	h_{FE}	$V_{CE} = -1\text{V}, I_C = -10\text{mA}$	100			
		$V_{CE} = -1\text{V}, I_C = -2\text{A}$	100		300	
		$V_{CE} = -1\text{V}, I_C = -5\text{A}$	45			
		$V_{CE} = -1\text{V}, I_C = -10\text{A}$	10			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100\text{mA}, I_B = -10\text{mA}$			-50	mV
		$I_C = -1\text{A}, I_B = -100\text{mA}$			-120	mV
		$I_C = -2\text{A}, I_B = -200\text{mA}$			-200	mV
		$I_C = -5\text{A}, I_B = -500\text{mA}$			-500	mV
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -5\text{A}, I_B = -500\text{mA}$			-1.15	V
Base-emitter on voltage	$V_{BE(on)}$	$I_C = -5\text{A}, V_{CE} = -1\text{V}$			-1	V
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{V}, f = 1\text{MHz}$		65		pF
Transition frequency	f_T	$V_{CE} = -10\text{V}, I_C = -0.1\text{A}, f = 50\text{MHz}$	30			MHz

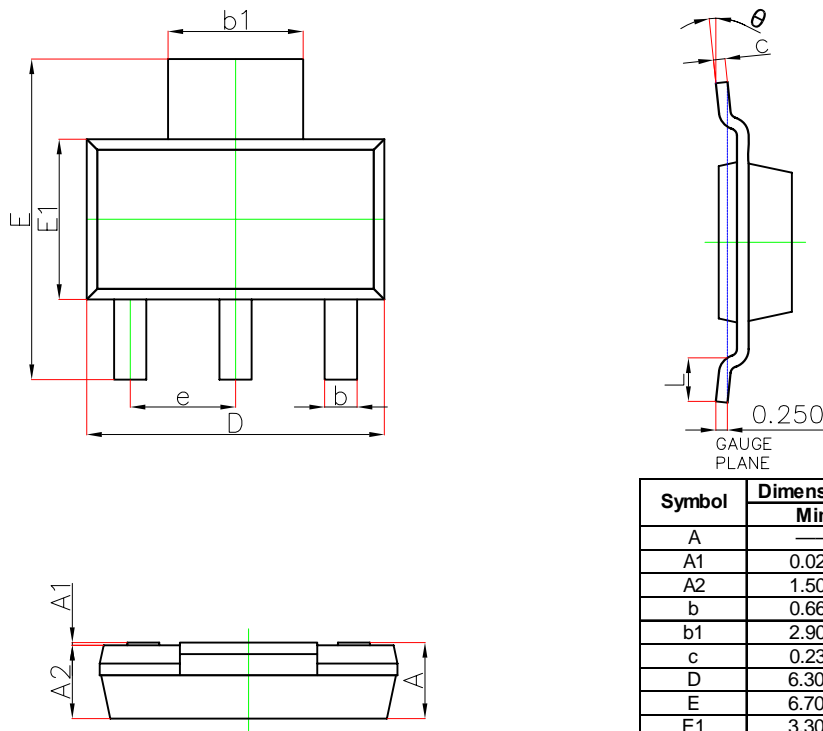
Note①: Device mounted on 1 in2 FR-4 board with 2oz.double-sided Copper, in a still air environment with $T_A=25\text{ }^\circ\text{C}$.

②: $T_C=25\text{ }^\circ\text{C}$. Limited only by maximum temperature allowed.

Typical Characteristics

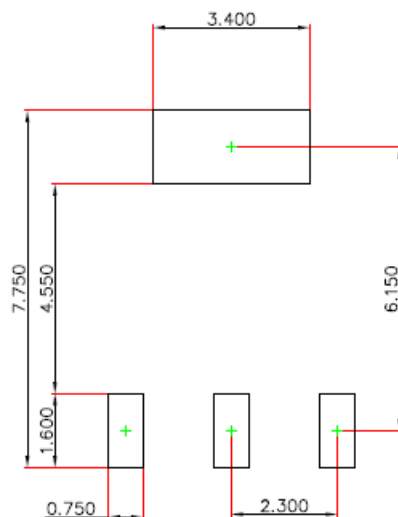


SOT-223 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	—	1.800	—	0.071
A1	0.020	0.100	0.001	0.004
A2	1.500	1.700	0.059	0.067
b	0.660	0.840	0.026	0.033
b_1	2.900	3.100	0.114	0.122
c	0.230	0.350	0.009	0.014
D	6.300	6.700	0.248	0.264
E	6.700	7.300	0.264	0.287
E_1	3.300	3.700	0.130	0.146
e	2.300(BSC)		0.091(BSC)	
L	0.750	—	0.030	—
θ	0°	10°	0°	10°

SOT-223 Suggested Pad Layout



Note:

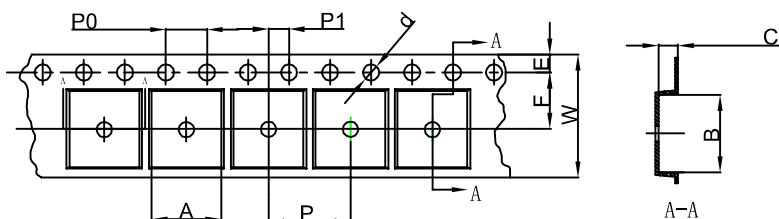
1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.050 mm.
3. The pad layout is for reference purposes only.

NOTICE

JSCJ reserves the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. JSCJ does not assume any liability arising out of the application or use of any product described herein.

SOT-223 Tape and Reel

SOT-223 Embossed Carrier Tape

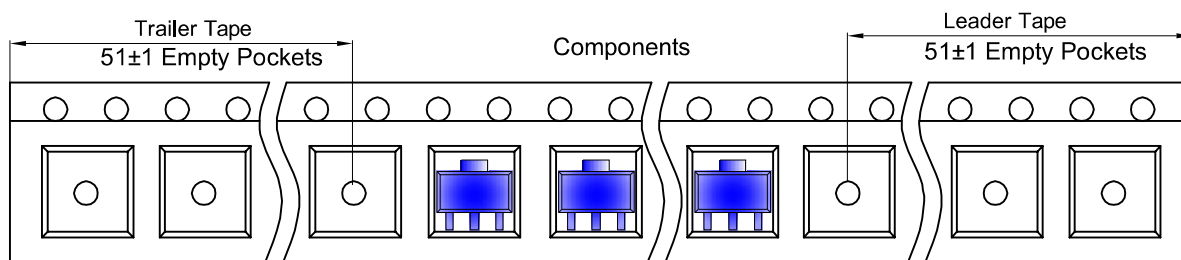


Packaging Description:

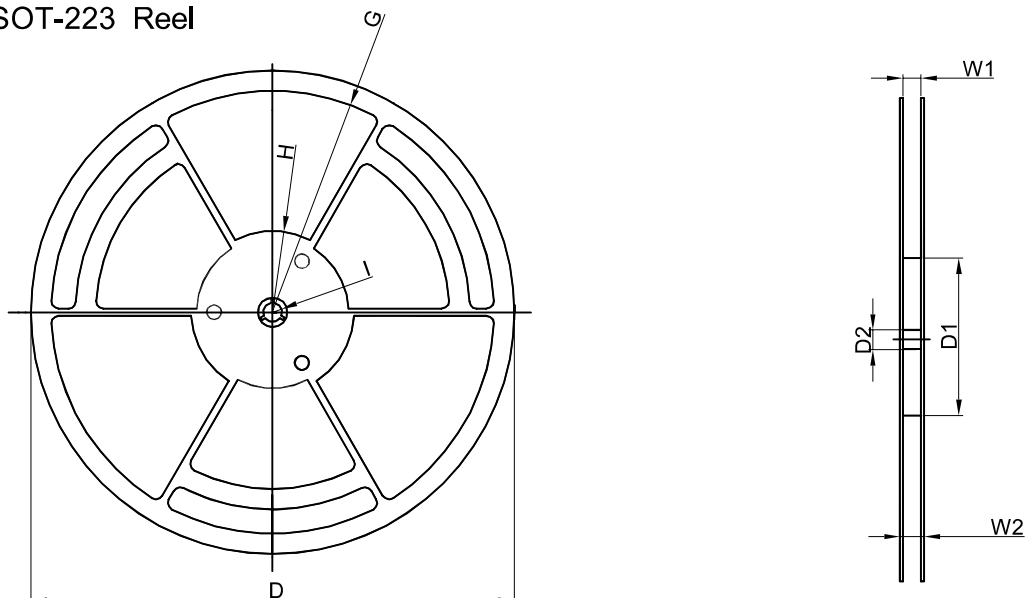
SOT-223 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 2,500 units per 13" or 33.0cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).

Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-223	6.765	7.335	1.88	Ø1.50	1.75	5.50	4.00	8.00	2.00	12.00

SOT-223 Tape Leader and Trailer



SOT-223 Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
13" Dia	φ330.00	100.00	13.00	R151.00	R56.00	R6.50	12.40	17.60

Reel	Reel Size	Box	Box Size (mm)	Carton	Carton Size (mm)
2,500 pcs	13 inch	5,000 pcs	360×360×65	25,000 pcs	378×358×382