

SOT-723 Plastic-Encapsulate Transistors

2SC5663 TRANSISTOR (NPN)

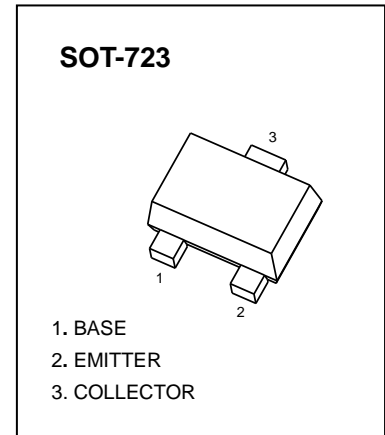
FEATURES

- High current.
- Low $V_{CE(sat)}$. $V_{CE(sat)} \leq 250\text{mV}$ at $I_C = 200\text{mA} / I_B = 10\text{mA}$

MARKING: BX

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless otherwise noted)

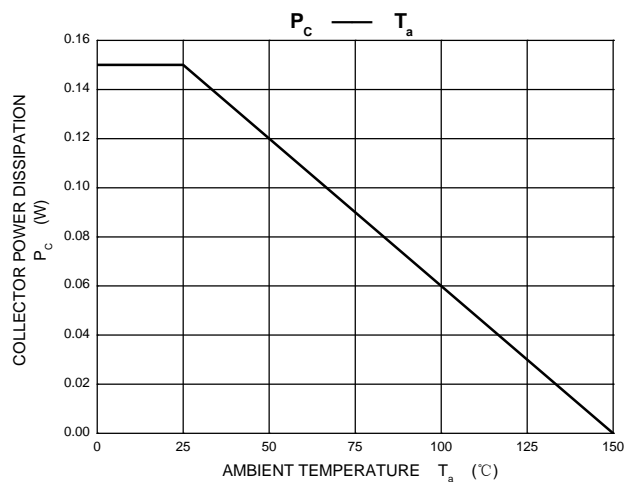
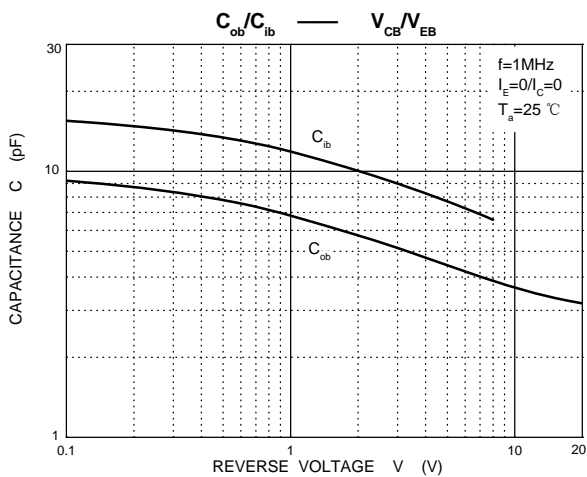
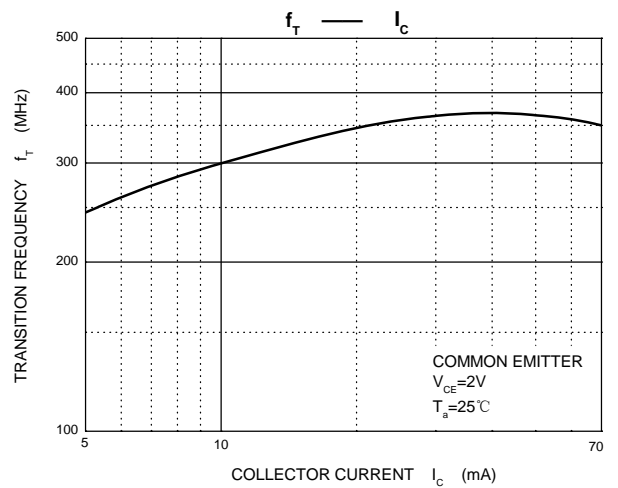
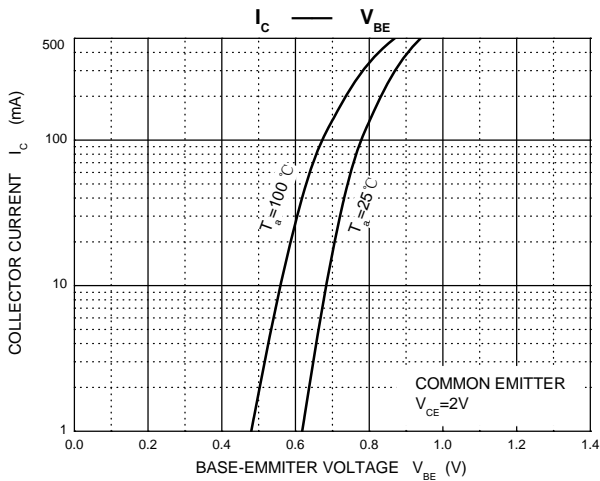
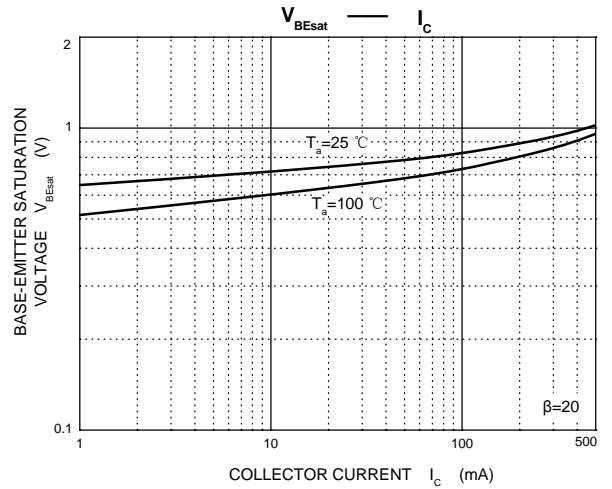
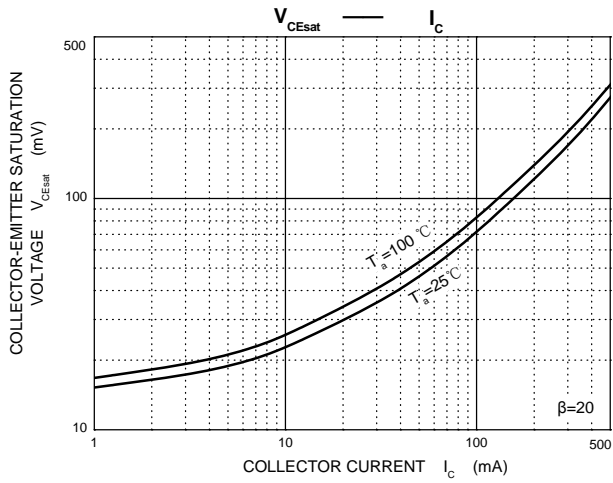
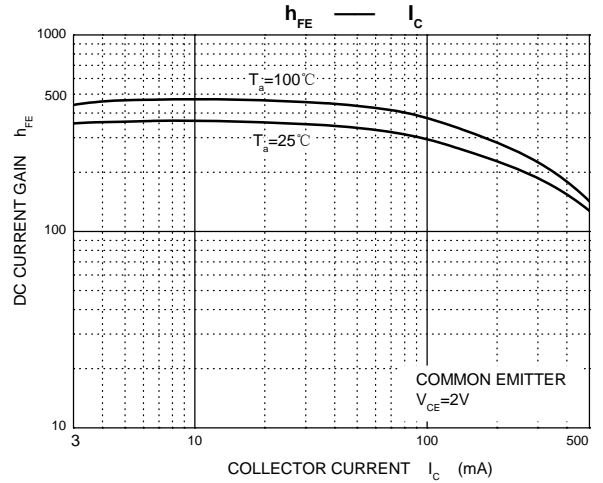
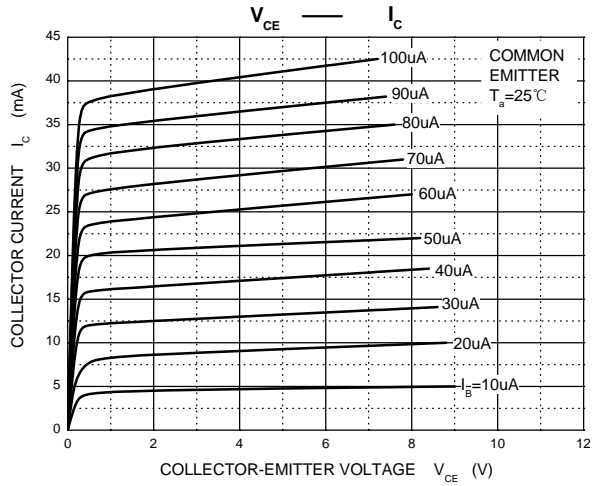
Symbol	Parameter	Value	Unit
V_{CB0}	Collector- Base Voltage	15	V
V_{CEO}	Collector-Emitter Voltage	12	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current -Continuous	0.5	A
P_C	Collector Power Dissipation	0.15	W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	$^\circ\text{C}$



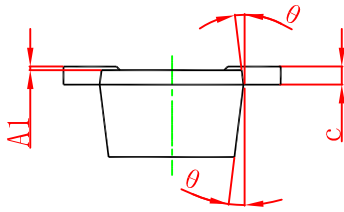
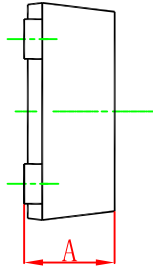
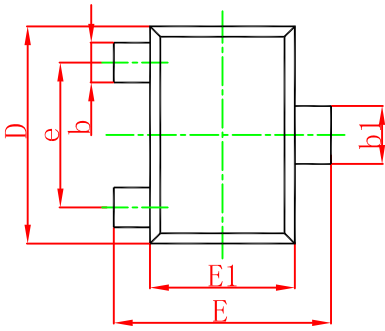
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CB0}$	$I_C=10\mu\text{A}, I_E=0$	15			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}, I_B=0$	12			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu\text{A}, I_C=0$	6			V
Collector cut-off current	I_{CB0}	$V_{CB}=15\text{V}, I_E=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=6\text{V}, I_C=0$			0.1	μA
DC current gain	h_{FE}	$V_{CE}=2\text{V}, I_C=10\text{mA}$	270		680	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=200\text{mA}, I_B=10\text{mA}$			0.25	V
Transition frequency	f_T	$V_{CE}=2\text{V}, I_C=10\text{mA}, f=100\text{MHz}$		320		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$		7.5		pF

Typical Characteristics

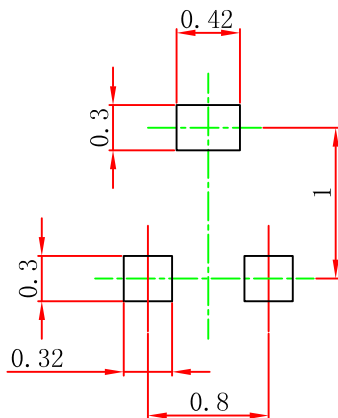


SOT-723 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.430	0.500	0.017	0.020
A1	0.000	0.050	0.000	0.002
b	0.170	0.270	0.007	0.011
b1	0.270	0.370	0.011	0.015
c	0.080	0.150	0.003	0.006
D	1.150	1.250	0.045	0.049
E	1.150	1.250	0.045	0.049
E1	0.750	0.850	0.030	0.033
e	0.800TYP.		0.031TYP.	
θ	7° REF.		7° REF.	

SOT-723 Suggested Pad Layout



Note:

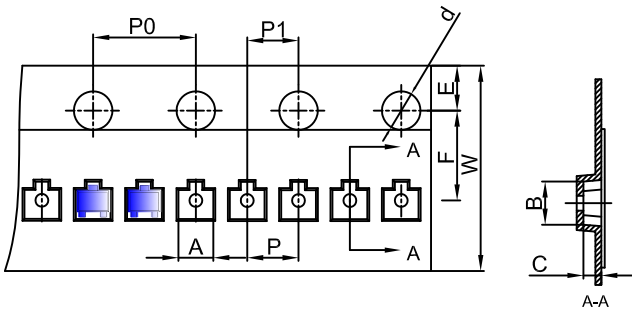
1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.

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-723 Tape and Reel

SOT-723 Embossed Carrier Tape

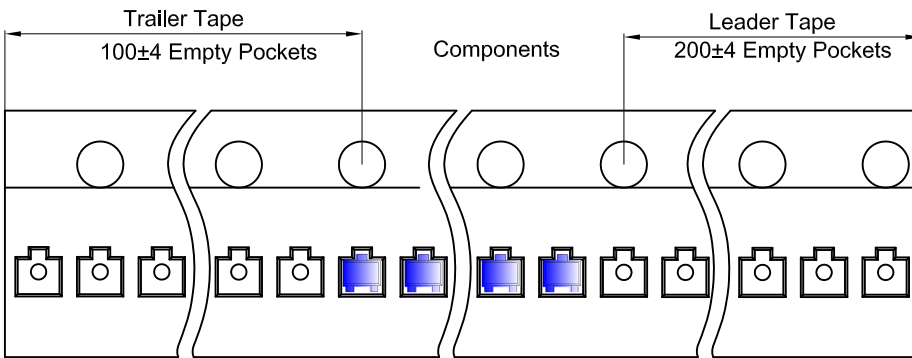


Packaging Description:

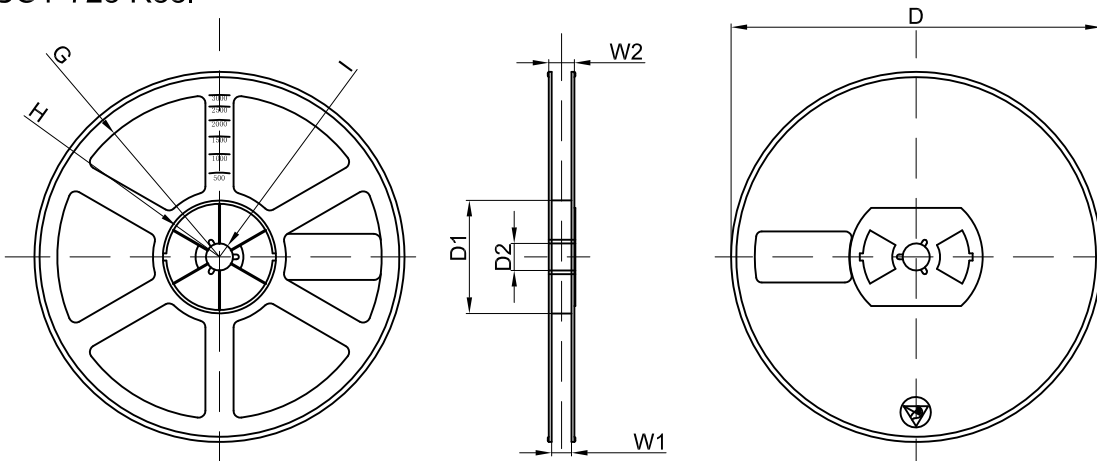
SOT-723 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 8,000 units per 7" or 17.8cm 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-723	1.33	1.45	0.61	Ø1.50	1.75	3.50	4.00	2.00	2.00	8.00

SOT-723 Tape Leader and Trailer



SOT-723 Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7" Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
8000 pcs	7 inch	120,000 pcs	203×203×195	480,000 pcs	438×438×220	

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