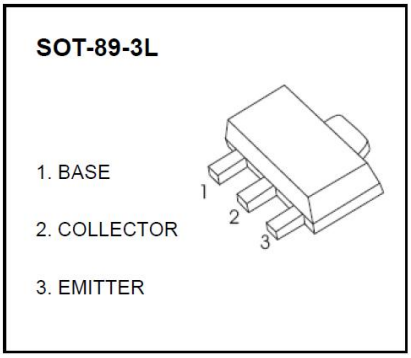
JIANGSU CHANGJING ELECTRONICS TECHNOLOGY CO., LTD.

AD-PXT8050* series Plastic-Encapsulated Transistor

AD- PXT8050* series Transistor (NPN)



FEATURES

- Compliment to AD-PXT8550
- AEC-Q101 qualified

MAXIMUM RATINGS (T_j = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Collector-base voltage	V_{CBO}	40	V
Collector-emitter voltage	V_{CEO}	25	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	1.5	A
Collector power dissipation	P_C	500	mW
Thermal resistance fromjunction to ambient	$R_{\theta JA}$	250	℃/W
Operating junction and storage temperature range	T_j, T_{stg}	-55 ~ 150	°C

ELECTRICAL CHARACTERISTICS (T_j = 25°C unless otherwise specified)

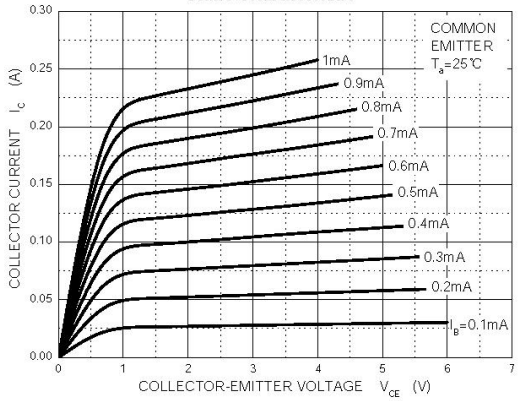
Parameter	Symbol	Test condition	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C = 100μA, I_E = 0A	40	-	-	V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C = 0.1mA, I_B = 0A	25	-	-	V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E = 100μA, I_C = 0A	5	-	-	V
Collector-base cut-off current	I_{CBO}	V_{CE} = 40V, I_E = 0A	-	-	0.1	μA
Emitter-base cut-off current	I_{CEO}	V_{CE} = 20V, I_B = 0A	-	-	0.1	μA
Collector cut-off current	I_{EBO}	V_{EB} = 5V, I_C = 0	-	-	0.1	μA
DC current gain	$h_{FE(1)}$	V_{CE} = 1V, I_C = 100mA	85	-	400	-
	$h_{FE(2)}$	V_{CE} = 1V, I_C = 800mA	40	-	-	-
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = 800mA, I_B = 80mA	-	-	0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C = 800mA, I_B = 80mA	-	-	1.2	
Base-emitter on voltage	$V_{BE(on)}$	I_C = 1V, V_{CE} = 10mA	-	-	1	V
Base-emitter positive favor voltage	V_{BEF}	I_B = 1A	-	-	1.55	V
Transition frequency	f_T	V_{CE} = 10V, I_C = 50Ma, f = 30MHz	-	100	-	MHz
Collector output capacitance	C_{ob}	V_{CB} = 10V, I_E = 0A, f = 1MHz	-	-	15	pF

CLASSIFICATION OF h_{FE}

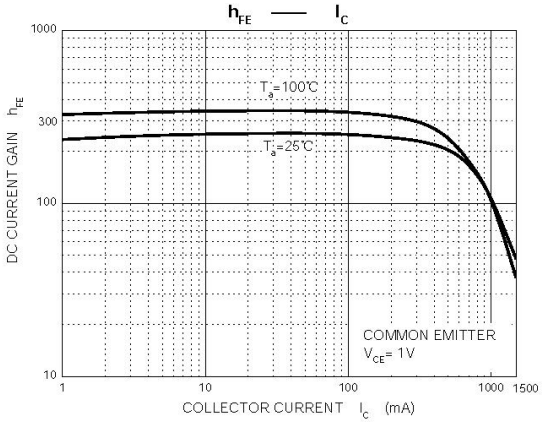
RANK	AD-PXT8050-B	AD-PXT8050-C	AD-PXT8050-D	AD-PXT8050-D3
RANGE	85-160	120-200	160-300	300-400
MARKING	Y̅1B	Y̅1C	Y̅1	Y̅1D3

TYPICAL CHARACTERISTICS

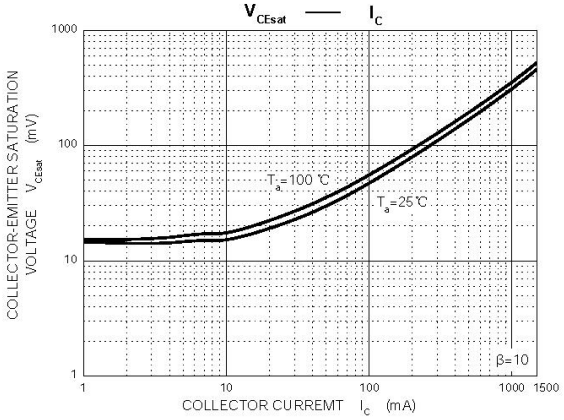
Static Characteristic



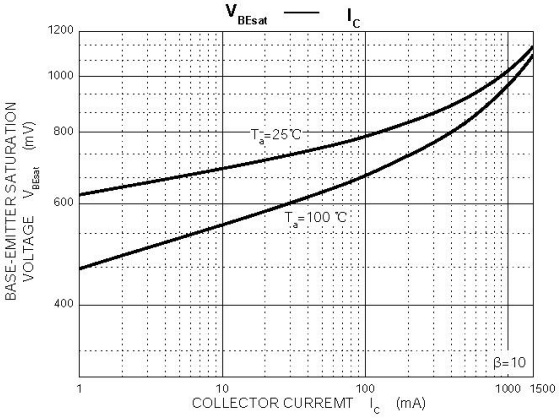
h_{FE} —— I_C



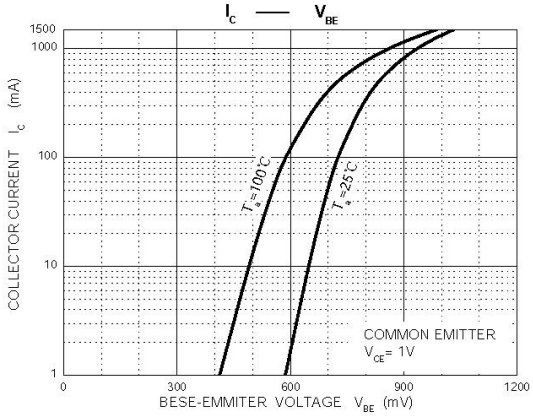
V_{CEsat} —— I_C



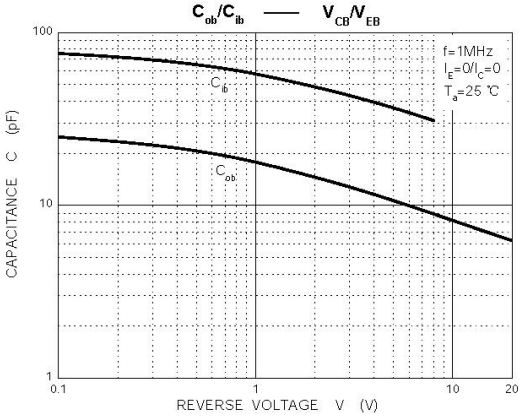
V_{BEsat} —— I_C



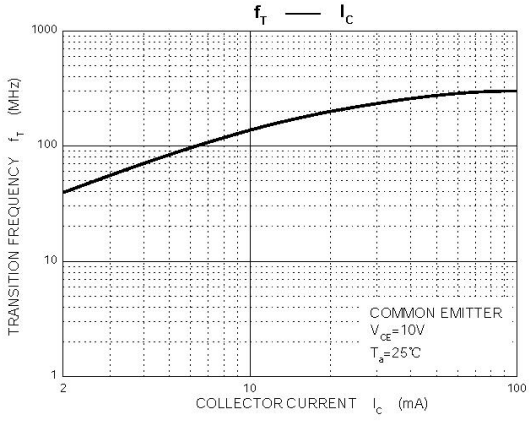
I_C —— V_{BE}



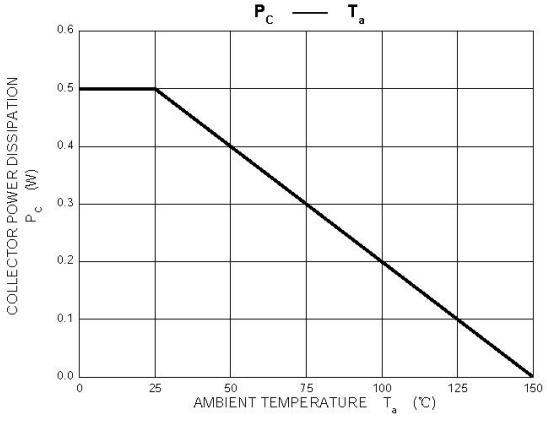
C_{ob}/C_{ib} —— V_{CB}/V_{EB}



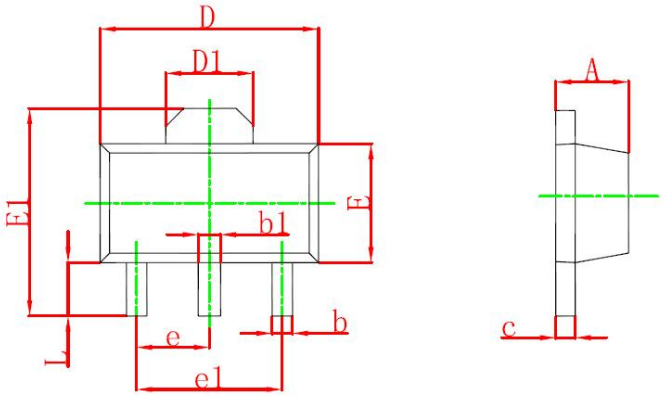
f_T —— I_C



P_C —— T_a

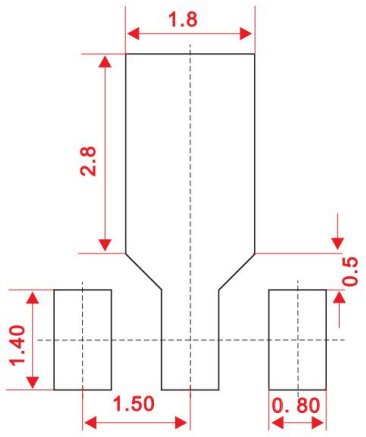


SOT-89-3L PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047

SOT-89-3L SUGGESTED PAD LAYOUT

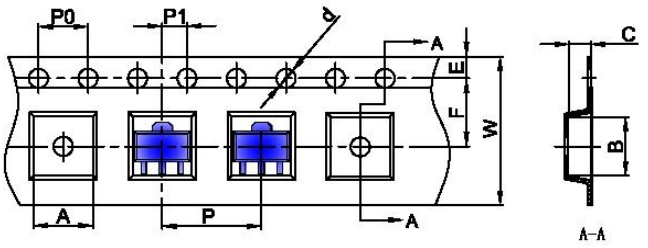


Note:

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

SOT-89-3L TAPE AND REEL

SOT-89-3L Embossed Carrier Tape

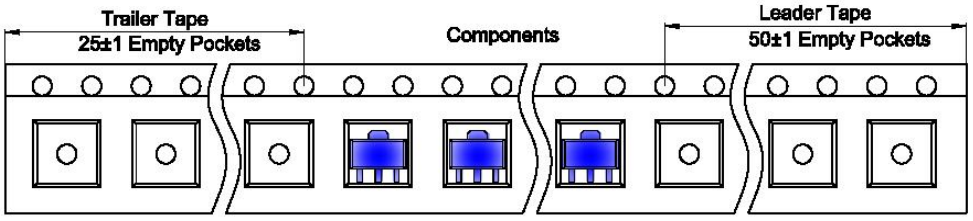


Packaging Description:

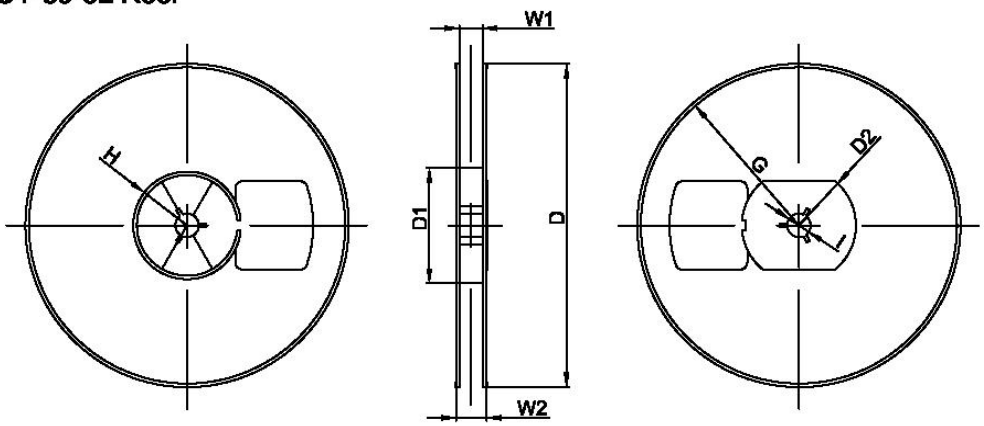
SOT-89-3L parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 1,000 units per 7" or 18.0 cm 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-89-3L	4.85	4.45	1.85	Ø1.50	1.75	5.50	4.00	8.00	2.00	12.00

SOT-89-3L Tape Leader and Trailer



SOT-89-3L Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Ø180.00	60.00	R32.00	R86.50	R30.00	Ø13.00	13.20	16.50

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
1000 pcs	7 inch	10,000 pcs	203×203×195	40,000 pcs	438×438×220	

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JIANGSU CHANGJING ELECTRONICS TECHNOLOGY CO., LTD.
13th Floor, C Block, Tengfei Building, Yan Chuang Yuan, Nanjing Jiangbei New Area, China

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