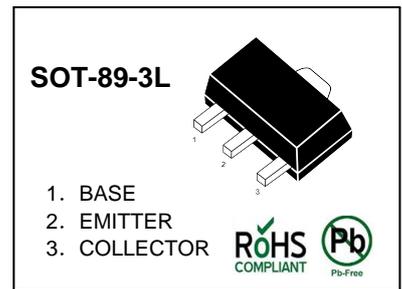


### PNP Silicon Epitaxial Planar Transistor

for high current application



#### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

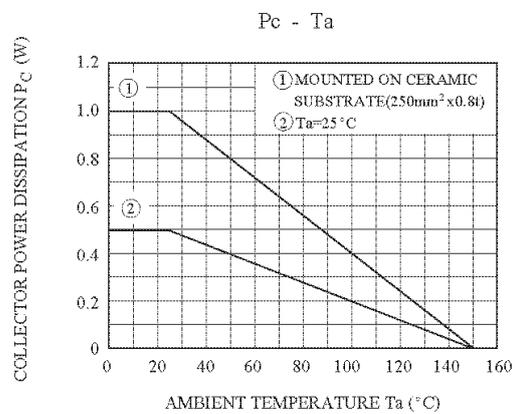
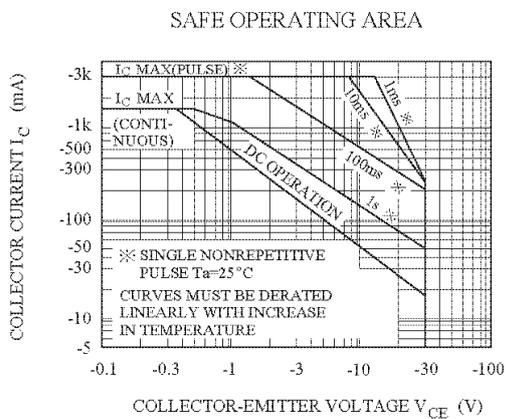
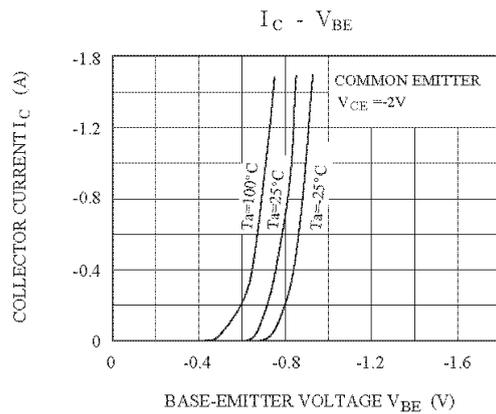
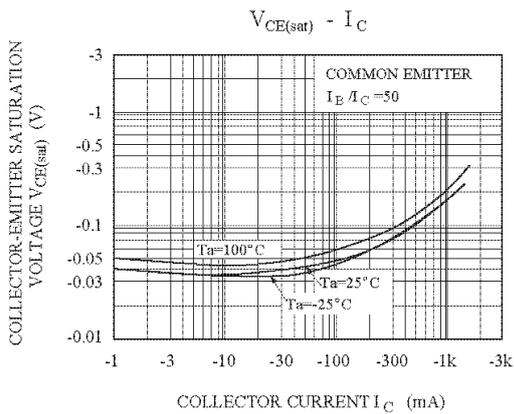
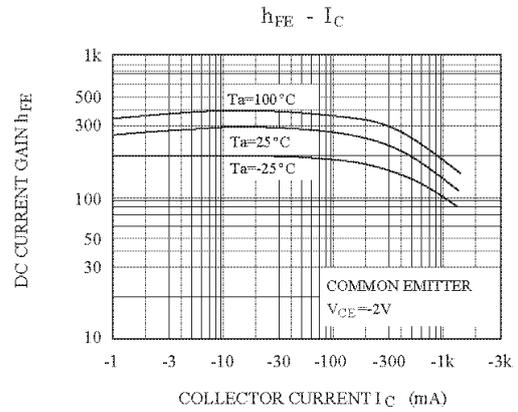
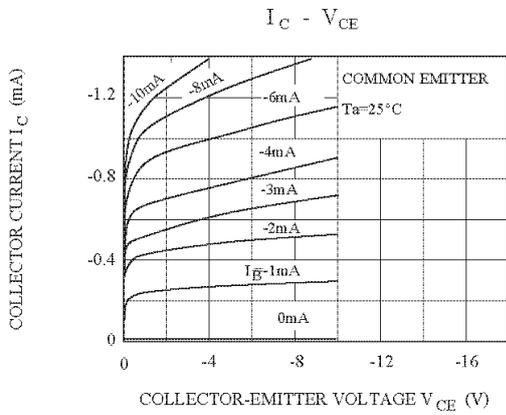
Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{\text{CBO}}$	30	V
Collector Emitter Voltage	$-V_{\text{CEO}}$	30	V
Emitter Base Voltage	$-V_{\text{EBO}}$	5	V
Collector Current	$-I_{\text{C}}$	1.5	A
Base Current	$-I_{\text{B}}$	0.3	A
Total Power Dissipation	$P_{\text{tot}}$	0.5 1 <sup>1)</sup>	W
Junction Temperature	$T_{\text{j}}$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{\text{stg}}$	- 55 to + 150	$^\circ\text{C}$

<sup>1)</sup> When mounted on a 250 mm<sup>2</sup> X 0.8 t ceramic substrate.

#### Characteristics at $T_a = 25^\circ\text{C}$

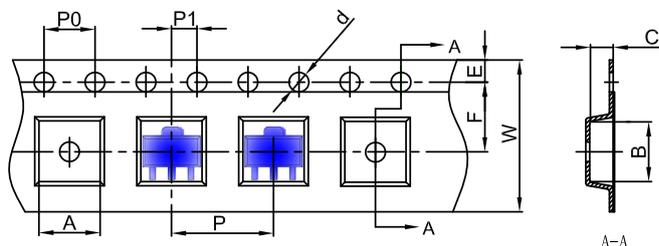
Parameter	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at $-V_{\text{CE}} = 2 \text{ V}$ , $-I_{\text{C}} = 500 \text{ mA}$ Current Gain Group	O Y	$h_{\text{FE}}$	100	-	200	-
		$h_{\text{FE}}$	160	-	320	-
Collector Base Breakdown Voltage at $-I_{\text{C}} = 1 \text{ mA}$	$-V_{(\text{BR})\text{CBO}}$	30	-	-	V	
Collector Emitter Breakdown Voltage at $-I_{\text{C}} = 10 \text{ mA}$	$-V_{(\text{BR})\text{CEO}}$	30	-	-	V	
Emitter Base Breakdown Voltage at $-I_{\text{E}} = 1 \text{ mA}$	$-V_{(\text{BR})\text{EBO}}$	5	-	-	V	
Collector Cutoff Current at $-V_{\text{CB}} = 30 \text{ V}$	$-I_{\text{CBO}}$	-	-	100	nA	
Emitter Cutoff Current at $-V_{\text{EB}} = 5 \text{ V}$	$-I_{\text{EBO}}$	-	-	100	nA	
Collector Emitter Saturation Voltage at $-I_{\text{C}} = 1.5 \text{ A}$ , $-I_{\text{B}} = 30 \text{ mA}$	$-V_{\text{CE}(\text{sat})}$	-	-	2	V	
Base Emitter Voltage at $-V_{\text{CE}} = 2 \text{ V}$ , $-I_{\text{C}} = 500 \text{ mA}$	$-V_{\text{BE}}$	-	-	1	V	
Transition Frequency at $-V_{\text{CE}} = 2 \text{ V}$ , $-I_{\text{C}} = 500 \text{ mA}$	$f_{\text{T}}$	-	120	-	MHz	
Collector Output Capacitance at $-V_{\text{CB}} = 10 \text{ V}$ , $f = 1 \text{ MHz}$	$C_{\text{ob}}$	-	-	50	pF	

## Typical Characteristics



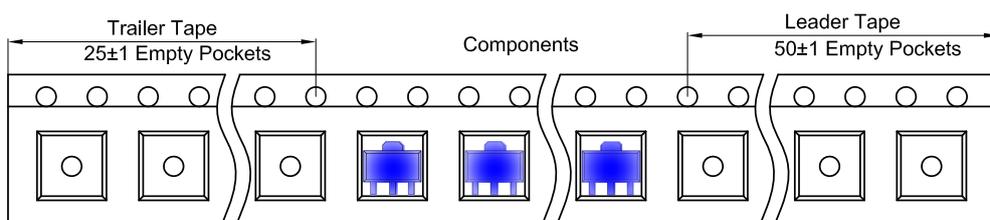
### SOT-89-3L Tape and Reel

#### SOT-89-3L Embossed Carrier Tape

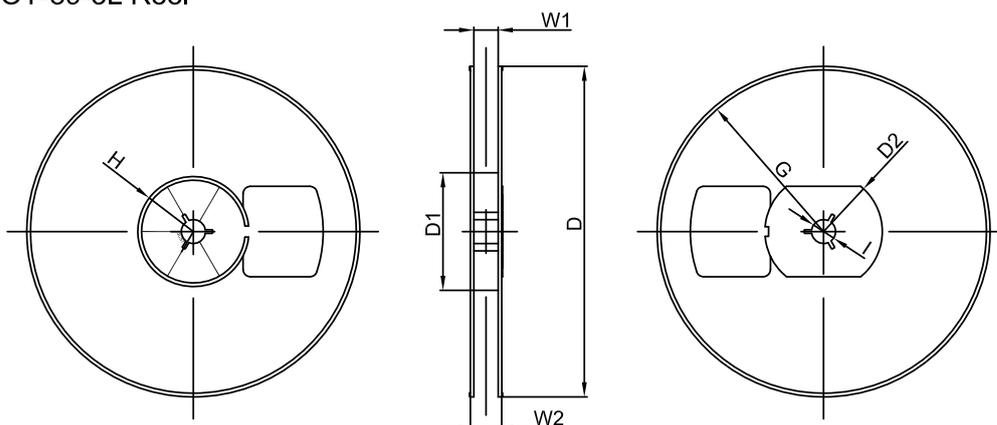


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-89-3L	4.85	4.45	1.85	Ø1.50	1.75	5.50	4.00	8.00	2.00	12.00

#### SOT-89-3L Tape Leader and Trailer

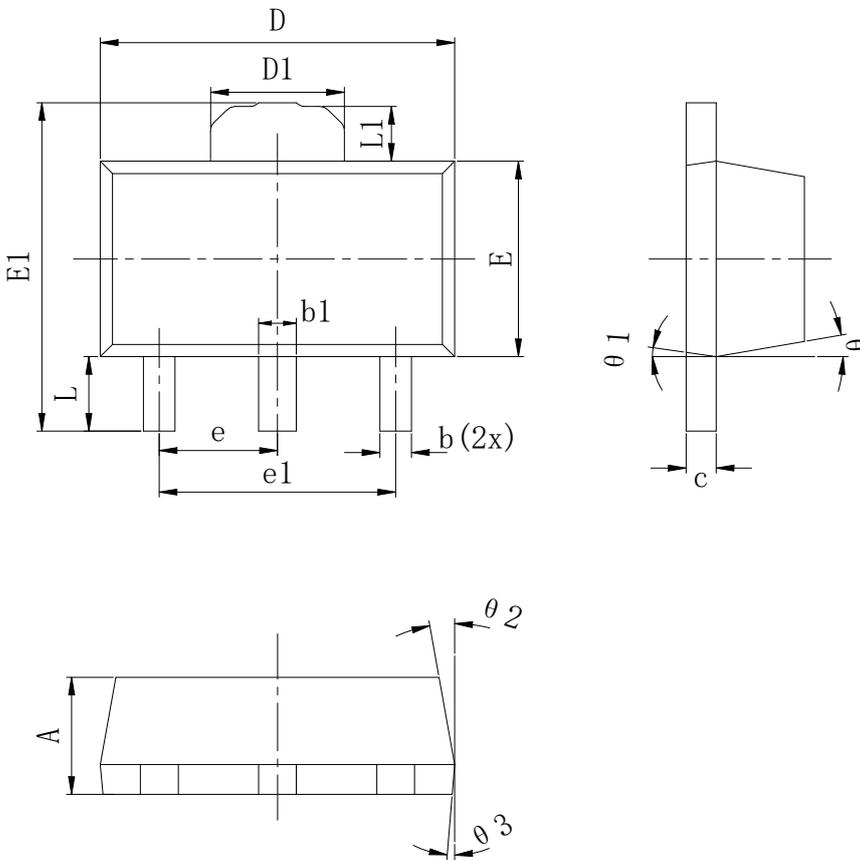


#### SOT-89-3L Reel



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	



SYMBOL	MILLIMETER		
	MIN	TYP.	MAX
A	1.400	1.500	1.600
b	0.320	0.400	0.520
b1	0.400	0.480	0.580
c	0.350	0.381	0.440
D	4.400	4.500	4.600
D1	1.700REF		
E	2.400	2.500	2.600
E1	4.050	4.200	4.350
e	1.500TYP.		
e1	3.000TYP.		
L	0.800	0.950	1.200
L1	0.700REF		
θ	10° REF		
θ 1	8° REF		
θ 2	10° REF		
θ 3	5° REF		

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