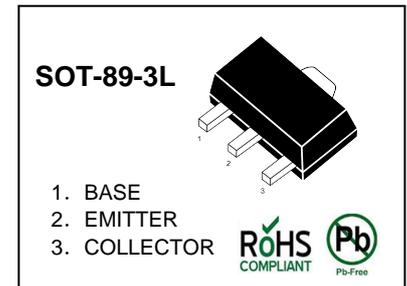# Lastinght

MPSA94U

PNP Silicon Epitaxial Planar Transistor

for high voltage switching and amplifier applications

SOT-89-3L

1. BASE
2. EMITTER
3. COLLECTOR

RoHS COMPLIANT   Pb Pb-Free

Absolute Maximum Ratings (T_a = 25°C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	400	V
Collector Emitter Voltage	$-V_{CEO}$	400	V
Emitter Base Voltage	$-V_{EBO}$	6	V
Collector Current	$-I_C$	300	mA
Total Power Dissipation	P_{tot}	625	mW
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

Characteristics at T_a = 25°C

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at $-V_{CE}$ = 10 V, $-I_C$ = 1 mA at $-V_{CE}$ = 10 V, $-I_C$ = 10 mA at $-V_{CE}$ = 10 V, $-I_C$ = 50 mA at $-V_{CE}$ = 10 V, $-I_C$ = 100 mA	h_{FE} h_{FE} h_{FE} h_{FE}	70 80 70 60	- 300 - -	- - - -
Collector Base Cutoff Current at $-V_{CB}$ = 300 V	$-I_{CBO}$	-	0.1	μA
Collector Emitter Cutoff Current at $-V_{CE}$ = 400 V	$-I_{CES}$	-	1	μA
Emitter Base Cutoff Current at $-V_{EB}$ = 4 V	$-I_{EBO}$	-	0.1	μA
Collector Base Breakdown Voltage at $-I_C$ = 100 μA	$-V_{(BR)CBO}$	400	-	V
Collector Emitter Breakdown Voltage at $-I_C$ = 1 mA	$-V_{(BR)CEO}$	400	-	V
Emitter Base Breakdown Voltage at $-I_E$ = 10 μA	$-V_{(BR)EBO}$	6	-	V
Collector Emitter Saturation Voltage at $-I_C$ = 10 mA, $-I_B$ = 1 mA at $-I_C$ = 50 mA, $-I_B$ = 5 mA	$-V_{CE(sat)}$	- -	0.2 0.5	V
Base Emitter Saturation Voltage at $-I_C$ = 10 mA, $-I_B$ = 1 mA	$-V_{BE(sat)}$	-	0.75	V
Collector Output Capacitance at $-V_{CB}$ = 20 V, f = 1 MHz	C_{ob}	-	7	pF

Typical Characteristics

h_{FE} - I_C

$V_{CE(sat)}$ - I_C

$V_{CE(sat)}$ - I_C

C_{ob} - V_{CB}

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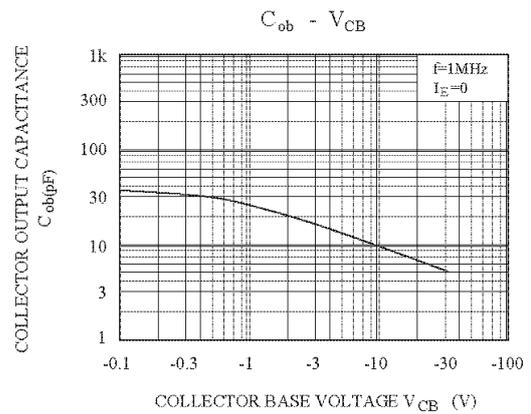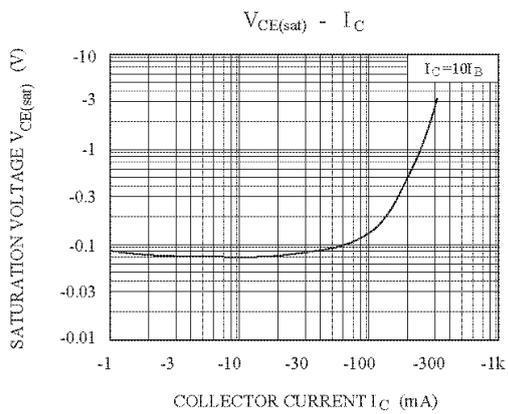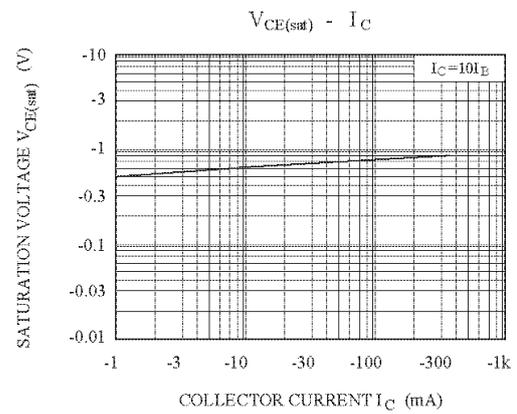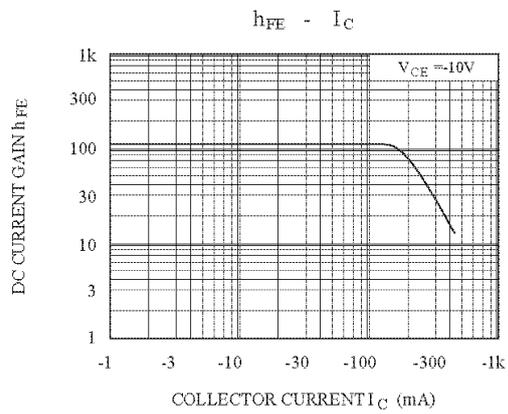
SOT-89-3L Tape and Reel

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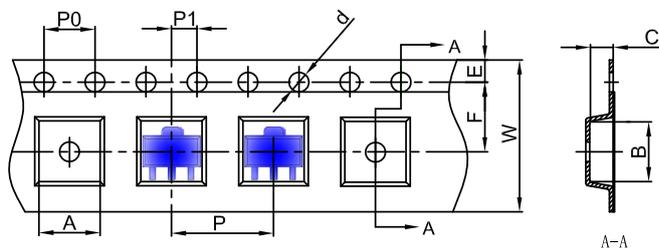
Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-89-3L	4.85	4.45	1.85	Ø1.50	1.75	5.50	4.00	8.00	2.00	12.00

SOT-89-3L Tape Leader and Trailer
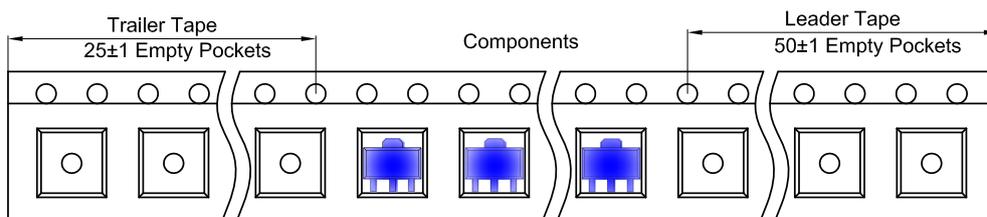
SOT-89-3L Reel
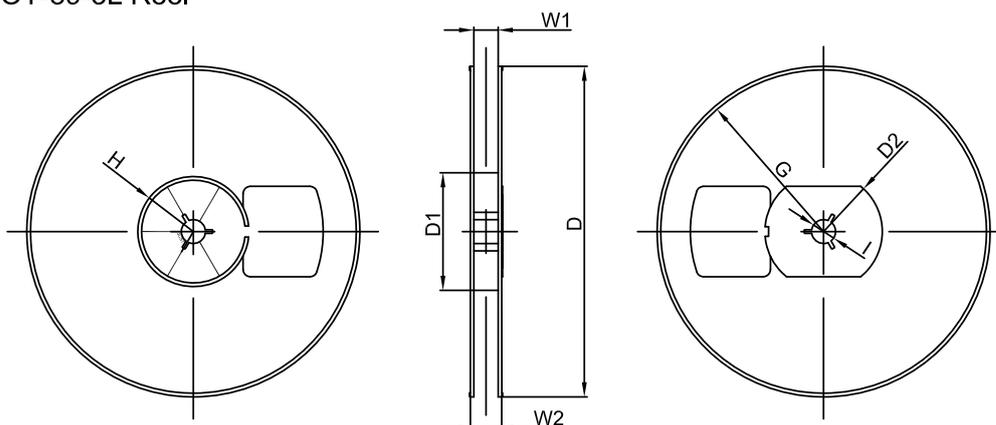
Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Ø180.00	60.00	R32.00	R86.50	R30.00	Ø13.00	13.20	16.50

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	
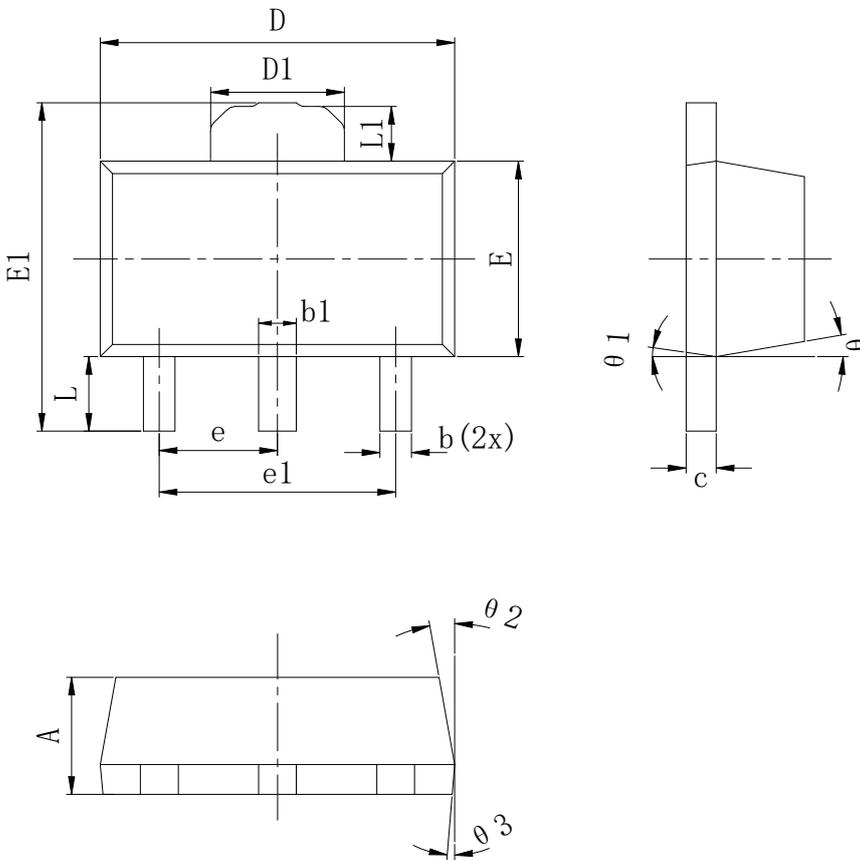
SYMBOL	MILLIMETER		
	MIN	TYP.	MAX
A	1.400	1.500	1.600
b	0.320	0.400	0.520
b1	0.400	0.480	0.580
c	0.350	0.381	0.440
D	4.400	4.500	4.600
D1	1.700REF		
E	2.400	2.500	2.600
E1	4.050	4.200	4.350
e	1.500TYP.		
e1	3.000TYP.		
L	0.800	0.950	1.200
L1	0.700REF		
θ	10° REF		
θ1	8° REF		
θ2	10° REF		
θ3	5° REF		

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