

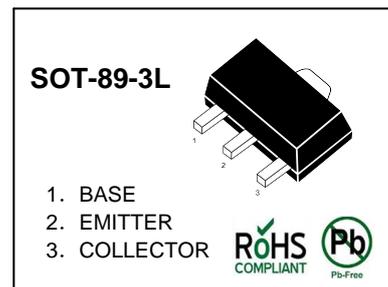
Plastic-Encapsulate Transistors

TRANSISTOR (NPN)

FEATURES

- Epitaxial planar die construction
- Complementary PNP Type available(2N2907A)

MARKING: 1P



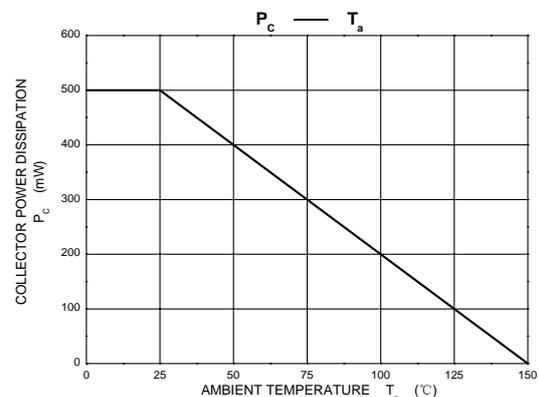
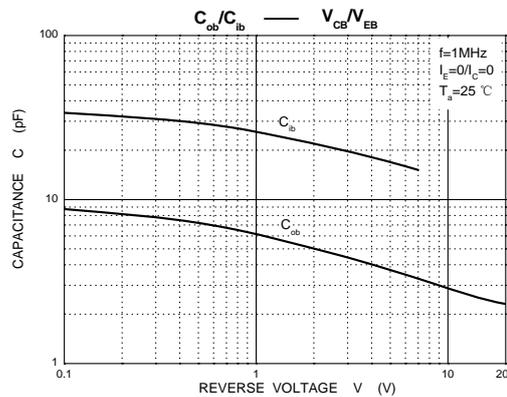
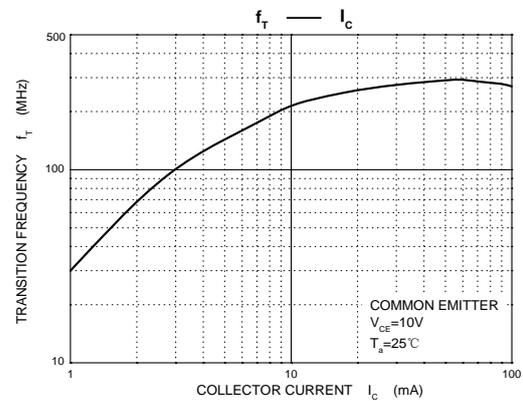
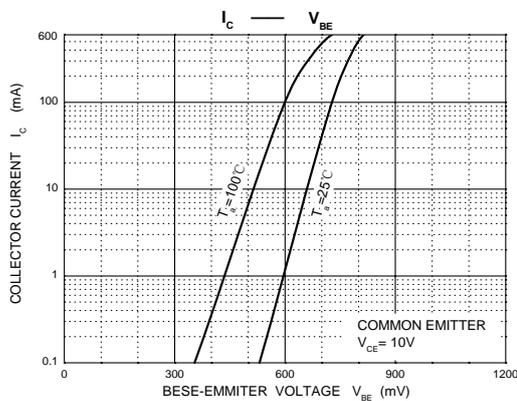
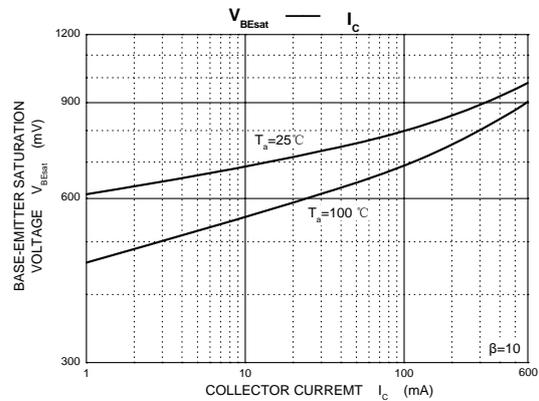
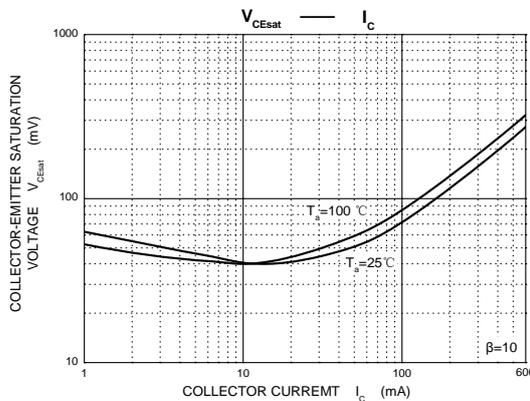
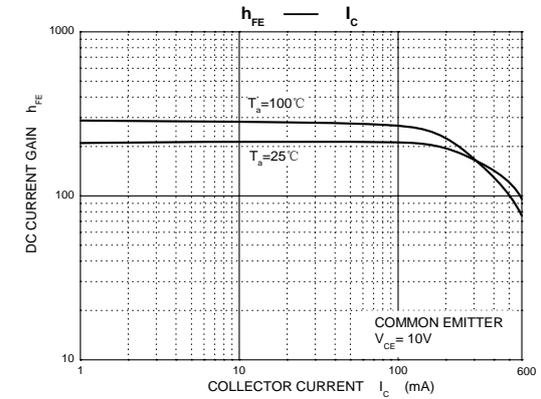
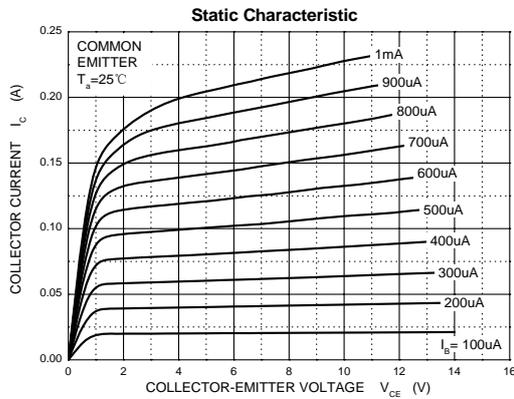
MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	75	V
V _{CEO}	Collector-Emitter Voltage	40	V
V _{EBO}	Emitter-Base Voltage	6	V
I _C	Collector Current -Continuous	600	mA
P _C	Collector Power Dissipation	0.5	W
T _J , T _{stg}	Operation Junction and Storage Temperature Range	-55 ~150	°C

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

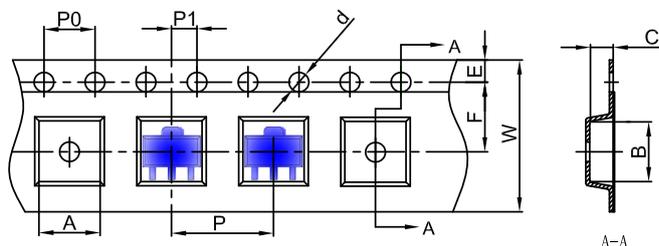
Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = 10μ A, I _E =0	75		V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C = 10mA, I _B =0	40		V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =10μA, I _C =0	6		V
Collector cut-off current	I _{CBO}	V _{CB} =60V, I _E =0		0.01	μA
Emitter cut-off current	I _{EBO}	V _{EB} = 5V, I _C =0		0.01	μA
DC current gain	h _{FE(1)}	V _{CE} =10V, I _C = 0.1mA	35		
	h _{FE(2)}	V _{CE} =10V, I _C = 1mA	50		
	h _{FE(3)}	V _{CE} =10V, I _C = 10mA	75		
	h _{FE(4)}	V _{CE} =10V, I _C = 150mA	100	300	
	h _{FE(5)}	V _{CE} =1V, I _C = 150mA	50		
	h _{FE(6)}	V _{CE} =10V, I _C = 500mA	40		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =500mA, I _B = 50mA		1	V
	V _{CE(sat)}	I _C =150mA, I _B =15mA		0.3	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =500mA, I _B =50mA		2.0	V
	V _{BE(sat)}	I _C =150mA, I _B =15mA	0.6	1.2	V
Transition frequency	f _T	V _{CE} =10V, I _C =20mA f=100MHz	300		MHz
Output Capacitance	C _{ob}	V _{CB} =10V, I _E = 0, f=1MHz		8	pF
Delay time	t _d	V _{CC} =30V, I _C =150mA		10	ns
Rise time	t _r	V _{BE(off)} =0.5V, I _{B1} =15mA		25	ns
Storage time	t _s	V _{CC} =30V, I _C =150mA		225	ns
Fall time	t _f	I _{B1} =- I _{B2} = 15mA		60	ns

Typical Characteristics



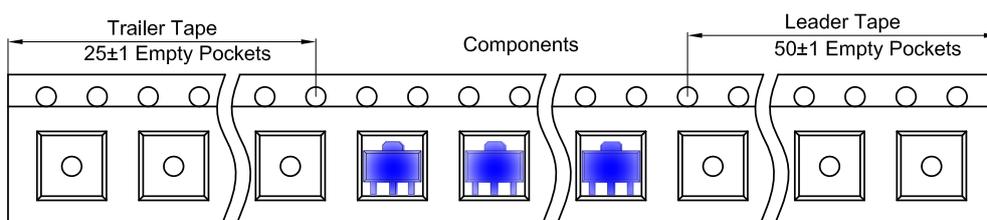
SOT-89-3L Tape and Reel

SOT-89-3L Embossed Carrier Tape

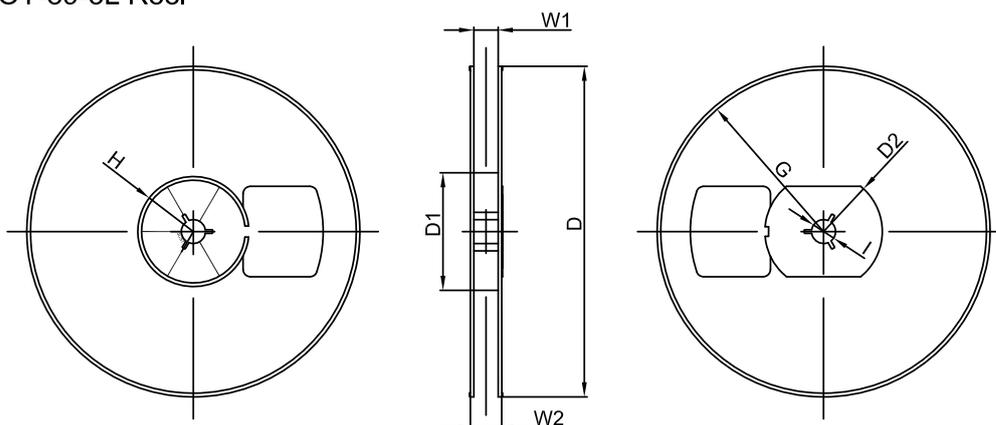


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-89-3L	4.85	4.45	1.85	Ø1.50	1.75	5.50	4.00	8.00	2.00	12.00

SOT-89-3L Tape Leader and Trailer

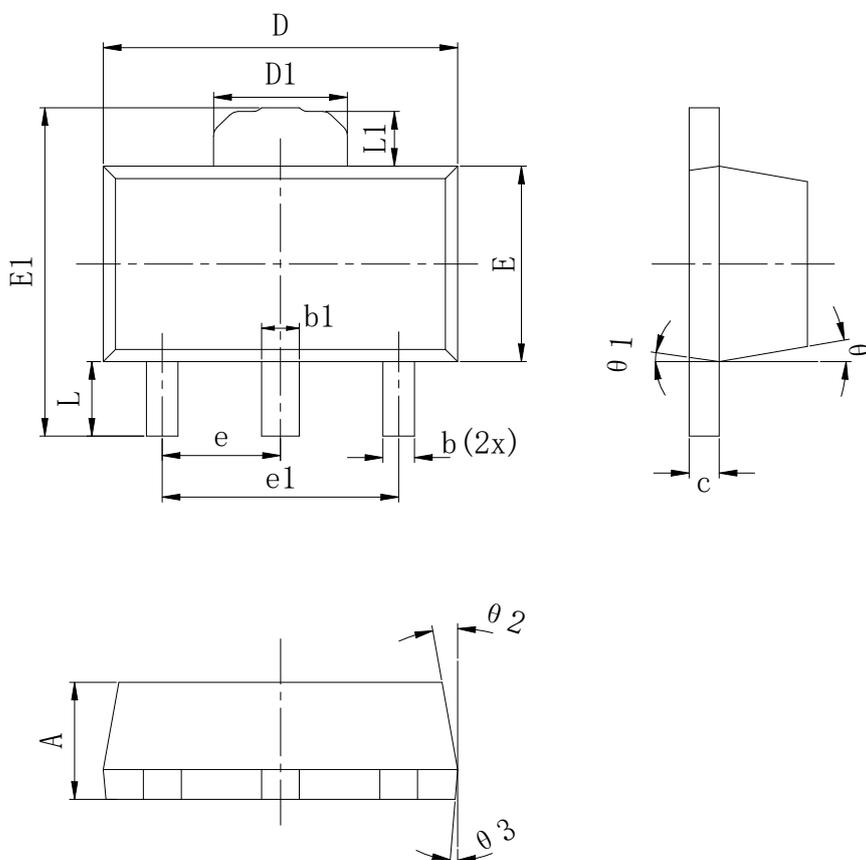


SOT-89-3L Reel



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		
$\theta 1$	8° REF		
$\theta 2$	10° REF		
$\theta 3$	5° REF		

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