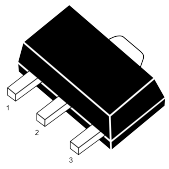
Lastinght

2SC4378U

NPN Silicon Epitaxial Planar Transistor

SOT-89-3L



1. BASE
2. EMITTER
3. COLLECTOR

RoHS COMPLIANT

Pb-Free

Absolute Maximum Ratings (T_a = 25℃)

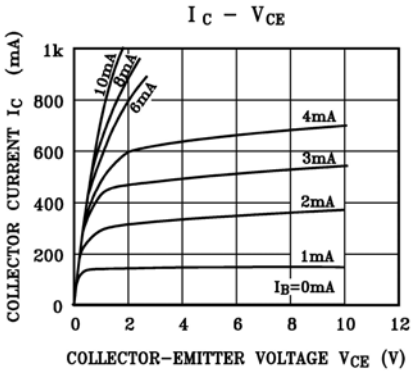
Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	80	V
Collector Emitter Voltage	V_{CEO}	60	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	1	A
Peak Collector Current	I_{CP}	2	A
Total Power Dissipation	P_{tot}	0.5 1 [1)]	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

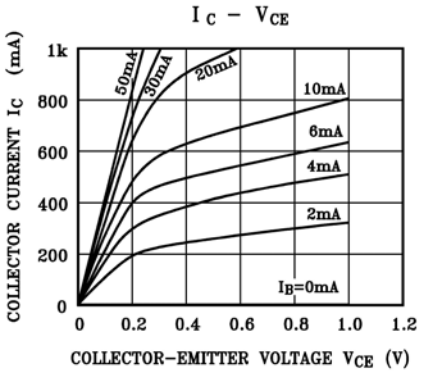
[1)] When mounted on a 250 mm^2 X 0.8 t ceramic substrate.

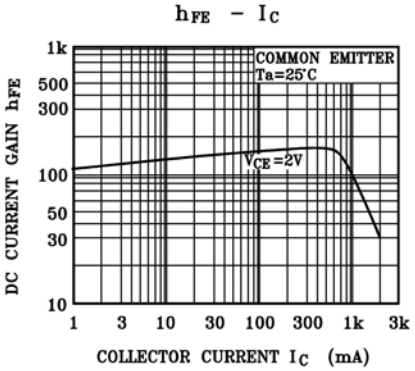
Characteristics at T_a = 25°C

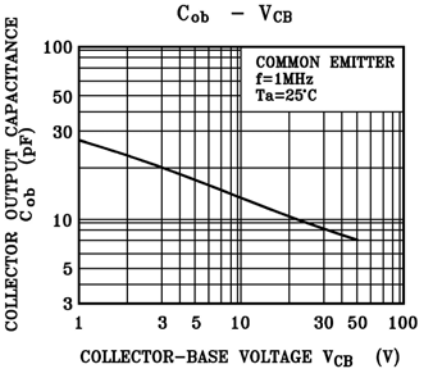
Parameter			Symbol	Min.	Typ.	Max.	Unit
DC Current Gain							
at V_{CE} = 2 V, I_C = 50 mA	Current Gain Group	Y	h_{FE}	100	-	200	-
		G	h_{FE}	160	-	320	-
at V_{CE} = 2 V, I_C = 1 A			h_{FE}	30	-	-	-
Collector Base Cutoff Current at V_{CB} = 50 V			I_{CBO}	-	-	100	nA
Emitter Base Cutoff Current at V_{EB} = 4 V			I_{EBO}	-	-	100	nA
Collector Emitter Breakdown Voltage at I_C = 1 mA			$V_{(BR)CEO}$	60	-	-	V
Collector Emitter Saturation Voltage at I_C = 500 mA, I_B = 50 mA			$V_{CE(sat)}$	-	-	0.5	V
Base Emitter Saturation Voltage at I_C = 500 mA, I_B = 50 mA			$V_{BE(sat)}$	-	-	1.2	V
Transition Frequency at V_{CE} = 10 V, I_C = 50 mA			f_T	-	150	-	MHz
Collector Output Capacitance at V_{CB} = 10 V, f = 1 MHz			C_{ob}	-	12	-	pF

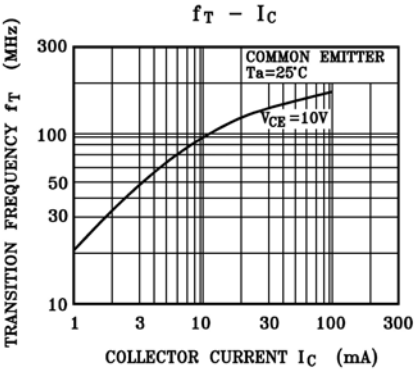
Typical Characteristics

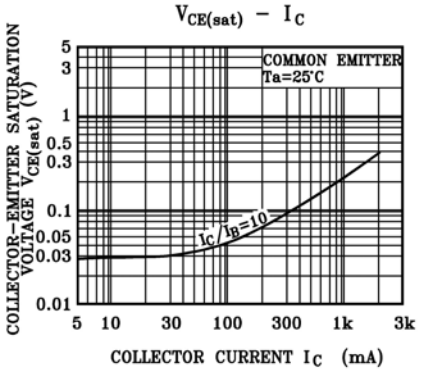


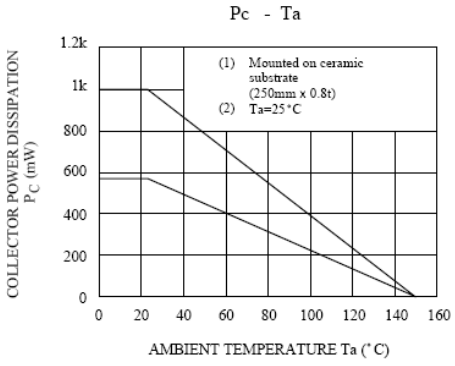






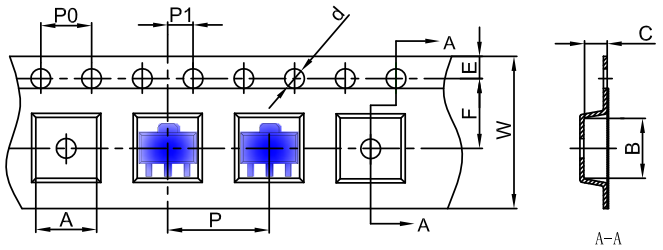






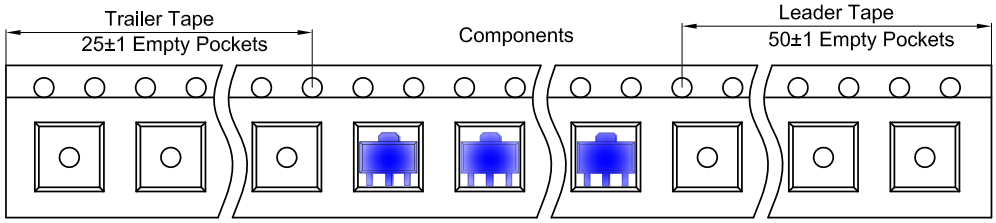
SOT-89-3L Tape and Reel

SOT-89-3L Embossed Carrier Tape

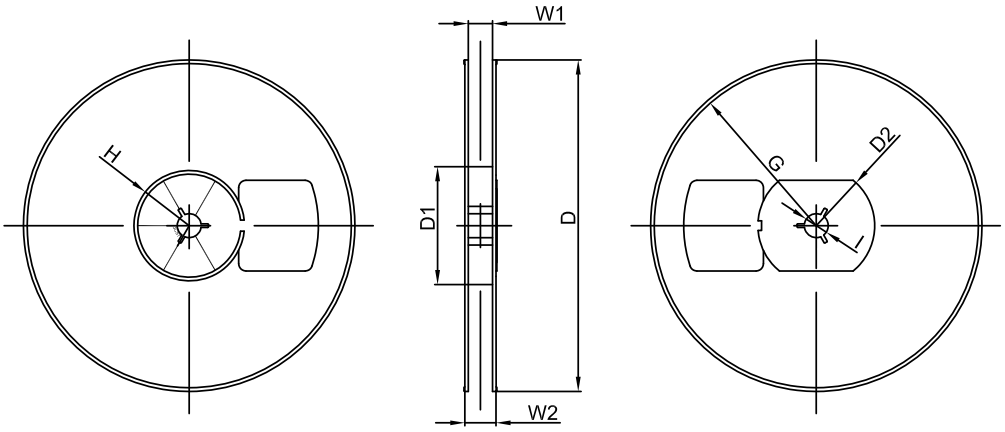


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-89-3L	4.85	4.45	1.85	Ø1.50	1.75	5.50	4.00	8.00	2.00	12.00

SOT-89-3L Tape Leader and Trailer

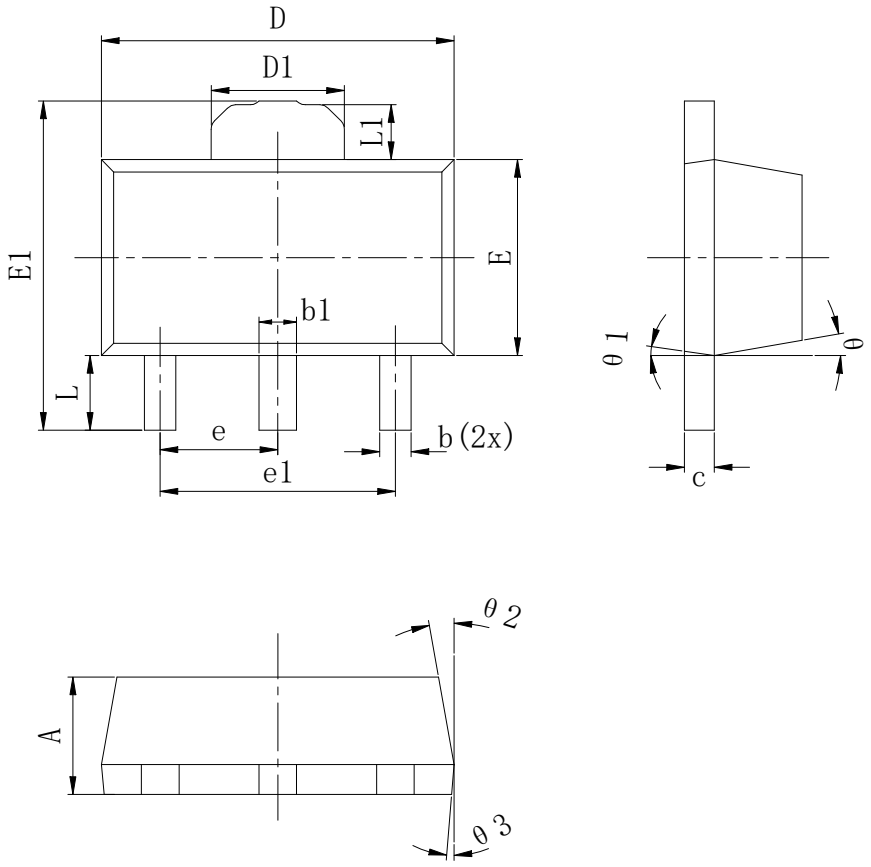


SOT-89-3L Reel



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		
θ1	8° REF		
θ2	10° REF		
θ3	5° REF		

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