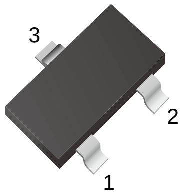
Transistor (PNP)

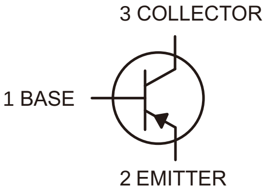
Features

- Lead free in comply with EU RoHS 2011/65/EU directives
- High current capacity in compact package
- Epitaxial planar type



Machanical Data

- Case:SOT-23
- Approx. Weight: 8.1mg



Ordering Information

Part Number	Marking	Shipping	Reel
LTM8550Q-TR3	LY2	3000PCS Tape&Reel	7 inchs
LTM8550Q-TR12	LY2	12000PCS Tape&Reel	13 inchs

Maximum Ratings (Ta=25°C)

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 — Continuous	I_C	0.8	A
Collector Power Dissipation	P_C	0.3	W
Thermal Resistance From JunctionTo Ambient	R_{thJA}	417	°C/W
Operation Junction and Storage Temperature Range	T_J , T_{stg}	-55~ +150	°C

Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C = -0.1mA, I_E = 0	-40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C = -1mA, I_B = 0	-25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E = -0.1mA, I_C = 0	-5			V
Collector cut-off current	I_{CBO}	V_{CB} = -35V, I_E = 0			-150	nA
Collector cut-off current	I_{CEO}	V_{CE} = -20V, I_B = 0			-10	uA
Emitter cut-off current	I_{EBO}	V_{EB} = -4V, I_C =0			-150	nA
DC current gain	h_{FE}	V_{CE} = -1V, I_C = -100mA	150		300	
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	V

Characteristics Curve

Fig.1 IC vs VCE

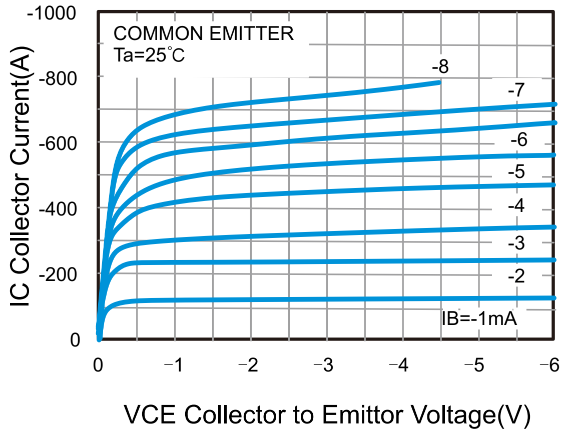


Fig.2 HFE vs IC

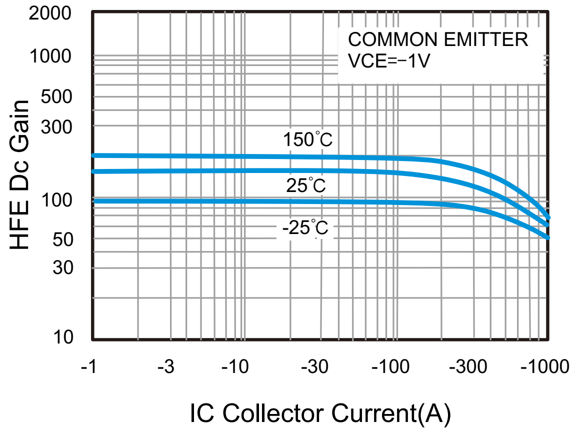


Fig.3 VCE(sat) Vs IC

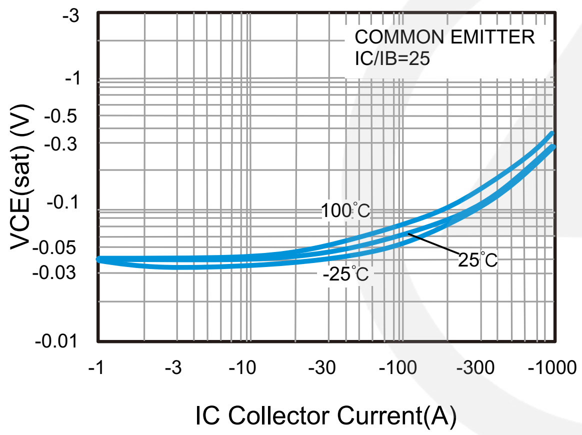
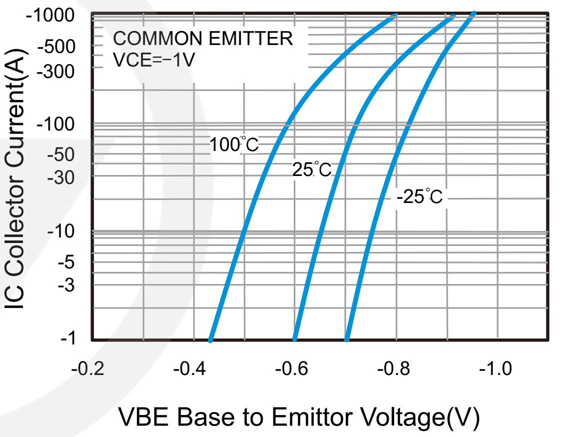
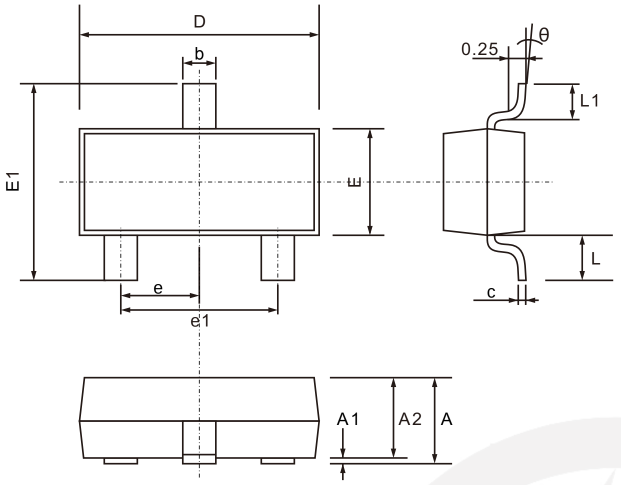


Fig.4 IC vs VBE



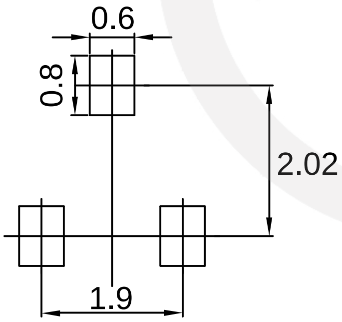
SOT-23 Package Outline



Unit: mm

SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.900	1.200
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.200
D	2.700	3.100
E	1.200	1.400
E1	2.200	2.600
e	0.950 TYP.	
e1	1.750	2.050
L	0.550 TYP.	
L1	0.300	0.500
θ	0°	8°

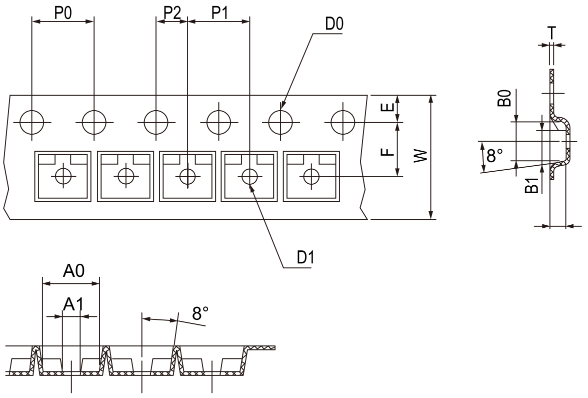
SOT-23 Suggested Pad Layout



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

Carrier Tape Dimensions

Unit：mm

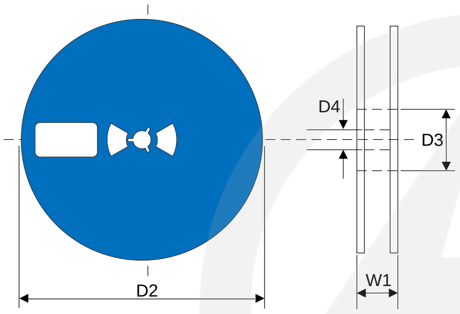


Symbol	Spec	Symbol	Spec
A0	3.15±0.10	P0	4.00±0.05
A1	1.09±0.10	P1	4.00±0.02
B0	2.77±0.10	W	8.00±0.10
B1	2.15±0.10	E	1.75±0.10
K0	1.22±0.10	F	3.50±0.05
D0	1.50±0.10	T	2.00±0.10
D1	1.00±0.10		

Reel Dimensions

Unit：mm

7” Reel

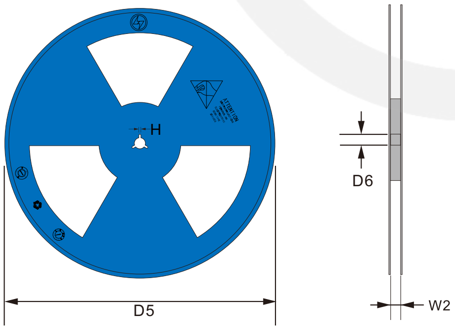


D2	Φ178.0±2.0
D3	Φ50
D4	13.0±0.5
W1	12±0.5
Quantity: 3000PCS	

Reel Dimensions

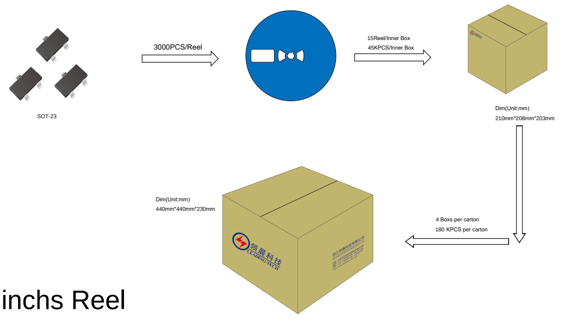
Unit：mm

13” Reel

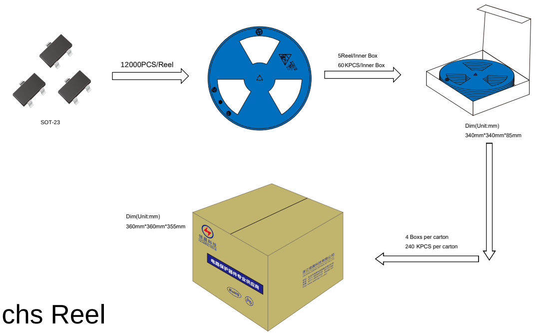


D5	Φ330.0±2.0
D6	Φ13.5±0.5
H	2.5±1.0
W2	12±2.0
Quantity: 12000PCS	

Packaging



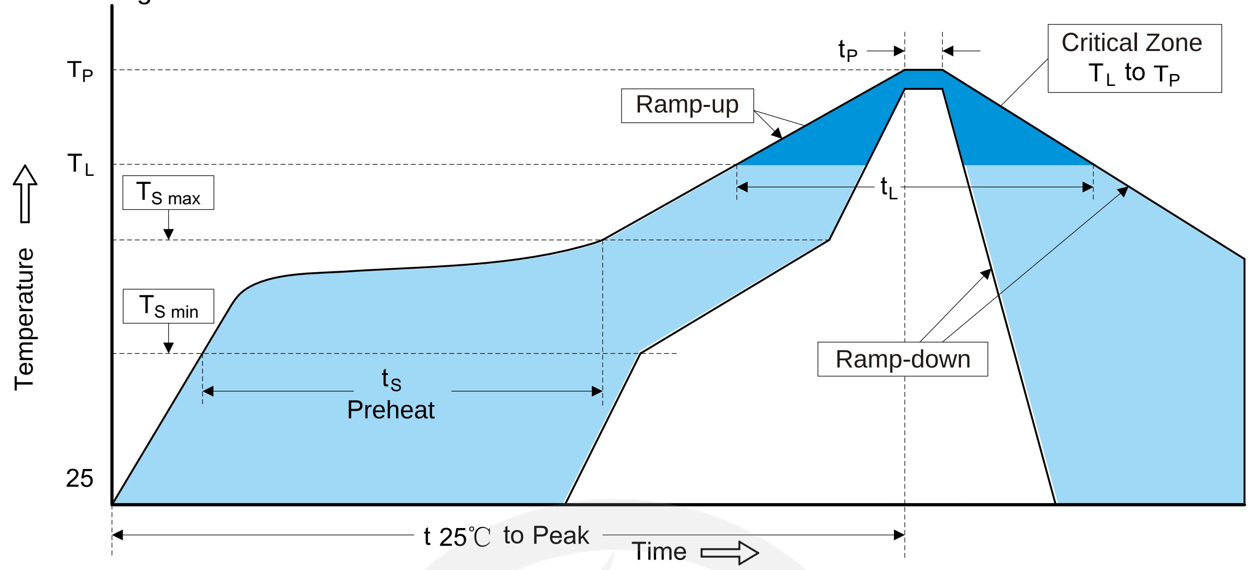
7 inchs Reel



13 inchs Reel

Recommended Soldering Conditons

Reflow Soldering



Recommended Conditions

Profile Feature	Pb-Free Assembly
Average ramp-up rate (T_L to T_P)	3℃/second max.
Preheat -Temperature Min ($T_{S\ min}$) -Temperature Max ($T_{S\ max}$) -Time (min to max) (t_S)	150℃ 200℃ 60-180 seconds
$T_{S\ max}$ to T_L -Ramp-up Rate	3℃/second max.
Time maintained above: -Temperature (T_L) -Time (t_L)	217℃ 60-150 seconds
Peak Temperature (T_P)	260℃
Time within 5℃ of actual Peak Temperature (t_P)	20-40 seconds
Ramp-down Rate	6℃/second max.
Time 25℃ to Peak Temperature	8 minutes max.

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Version Update Information

Series NO.	Enactment/Revision Date	Effective Date	Version	Revision Content	Revision Reason	Revision Person	Note
01	2024.03.01	2024.03.01	3.0	New file	/	Ding	
02	2025.08.27	2025.08.27	3.1	Update packaging information	/	Ding	
03	2026.03.06	2026.03.06	3.2	Package outline E1(max)=2.6mm	/	Ding	