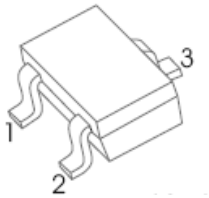
TRANSISTOR (NPN)

SOT－323



1. BASE

2. EMITTER

3. COLLECTOR

FEATURES

- Complementary to MMST3906

MARKING : K2N / T1A

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	40	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	200	mA
P_C	Collector Power Dissipation	200	mW
$R_{\Theta JA}$	Thermal Resistance From Junction To Ambient	625	℃/W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55～+150	℃

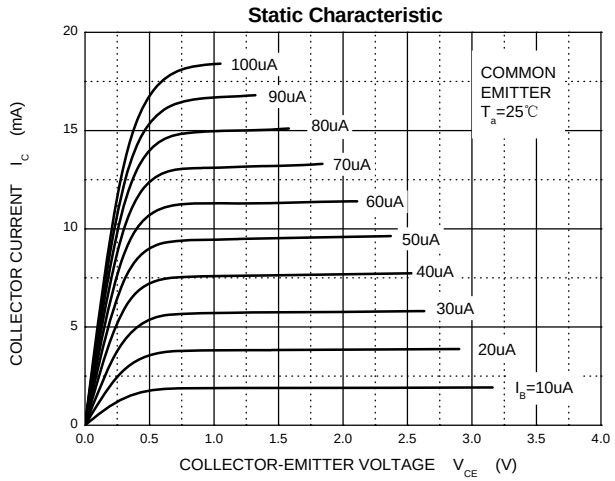
ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

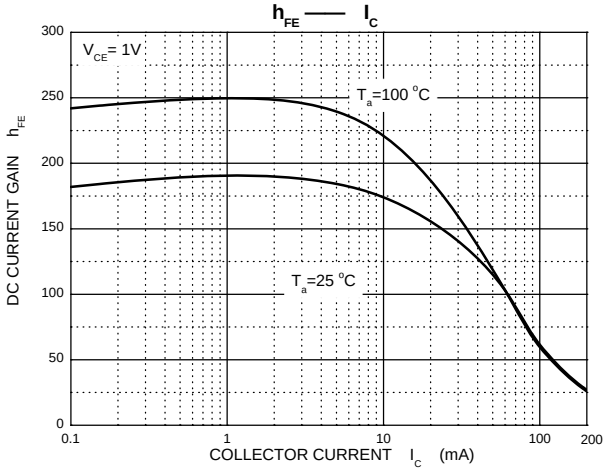
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$*	I_C=10μA, I_E=0	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$*	I_C=1mA, I_B=0	40			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$*	I_E=10μA, I_C=0	5			V
Collector cut-off current	I_{CBO}*	V_{CB}=60V, I_E=0			100	nA
Collector cut-off current	I_{CEX}	V_{CE}=30V, $V_{BE(off)}$=3V			50	nA
DC current gain	h_{FE}*	V_{CE}=1V, I_C=100μA	40			
		V_{CE}=1V, I_C=1mA	70			
		V_{CE}=1V, I_C=10mA	100		300	
		V_{CE}=1V, I_C=50mA	60			
Collector-emitter saturation voltage	$V_{CE(sat)}$*	I_C=10mA, I_B=1mA			0.25	V
		I_C=50mA, I_B=5mA			0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$*	I_C=10mA, I_B=1mA			0.85	V
		I_C=50mA, I_B=5mA			0.95	V
Transition frequency	f_T	V_{CE}=20V,I_C=10mA , f=100MHz	300			MHz
Collector output capacitance	C_{ob}	V_{CB}=5V, I_E=0, f=1MHz			4	pF
Collector output capacitance	C_{ib}	V_{EB}=0.5V, I_E=0, f=1MHz			8	pF
Delay time	t_d	V_{CC}=3V, $V_{BE(off)}$=0.5V I_C=10mA, I_{B1}=1mA			35	ns
Rise time	t_r				35	ns
Storage time	t_s	V_{CC}=3V, I_C=10mA, I_{B1}= I_{B2}=1mA			225	ns
Fall time	t_f				75	ns

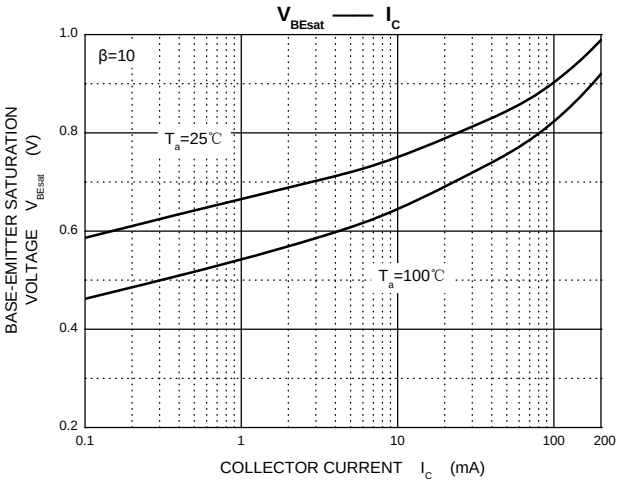
*Pulse test: pulse width ≤300μs,duty cycle≤ 2.0%.

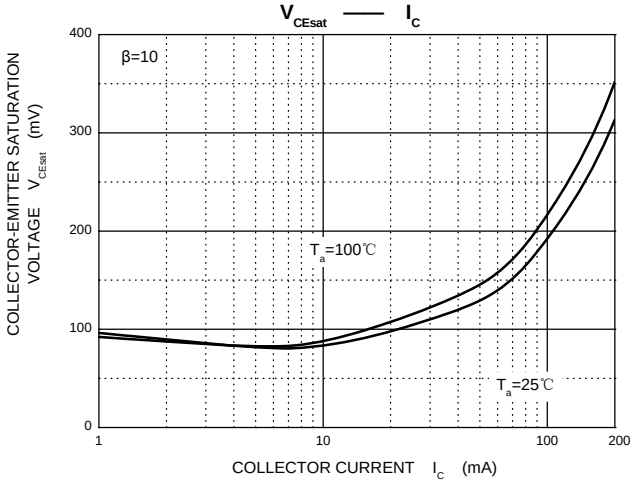
WPMtek

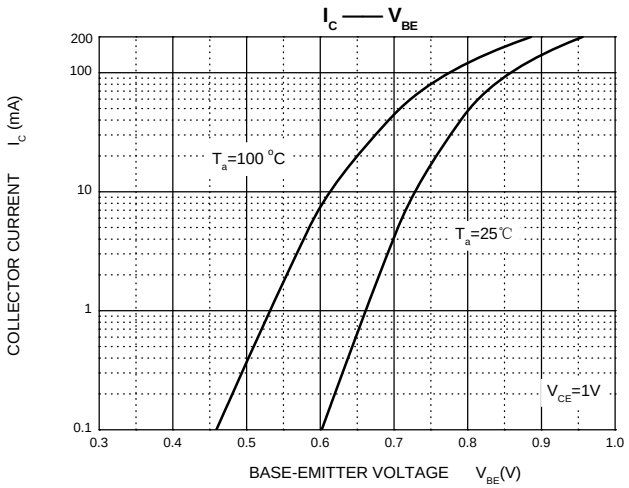
Typical Characteristics

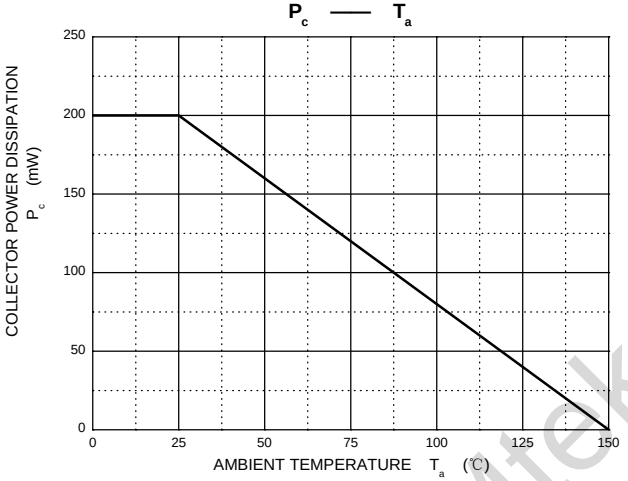






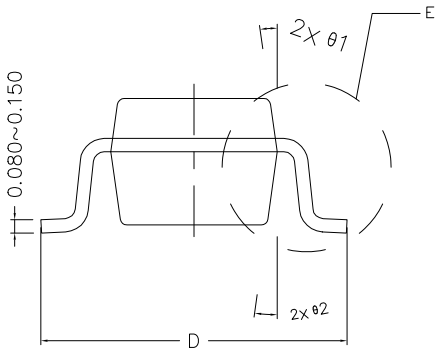




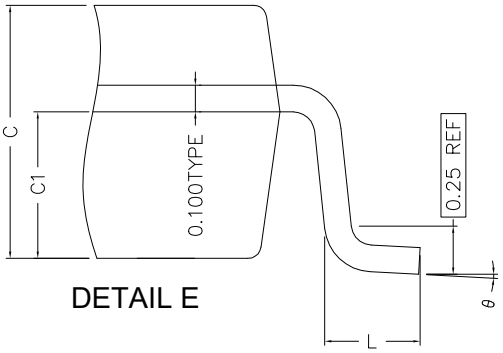


WPMtek

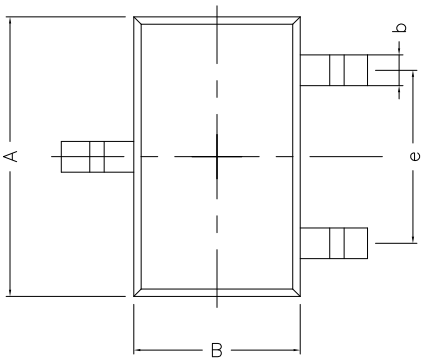
SOT-323 Package Outline Dimensions



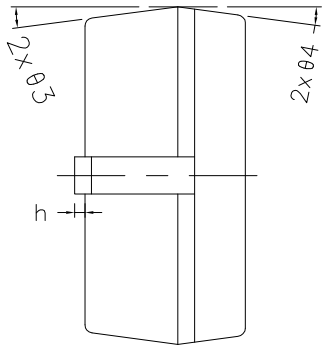
SIDE VIEW



DETAIL E



TOP VIEW

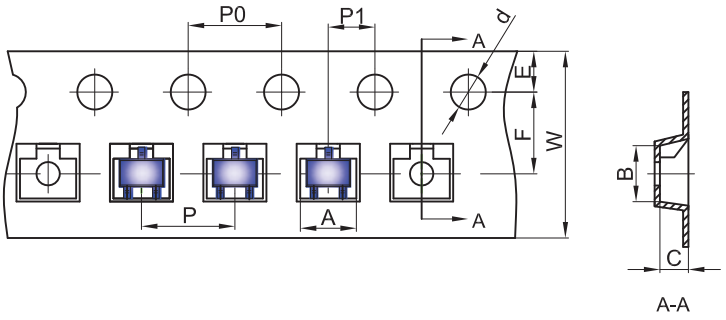


SIDE VIEW

COMMON DIMENSIONS (UNITS OF MEASURE IS mm)			
	MIN	NORMAL	MAX
A	2.000	2.100	2.200
B	1.150	1.250	1.350
C	0.900	0.950	1.000
C1	0.500	0.550	0.600
D	2.100	2.300	2.500
L	0.220	0.360	0.500
b	0.200	0.250	0.400
h	0.020	0.050	0.100
e	1.300TYPE		
θ_1	8° TYPE		
θ_2	8° TYPE		
θ_3	8° TYPE		
θ_4	8° TYPE		
θ	0~8° TYPE		

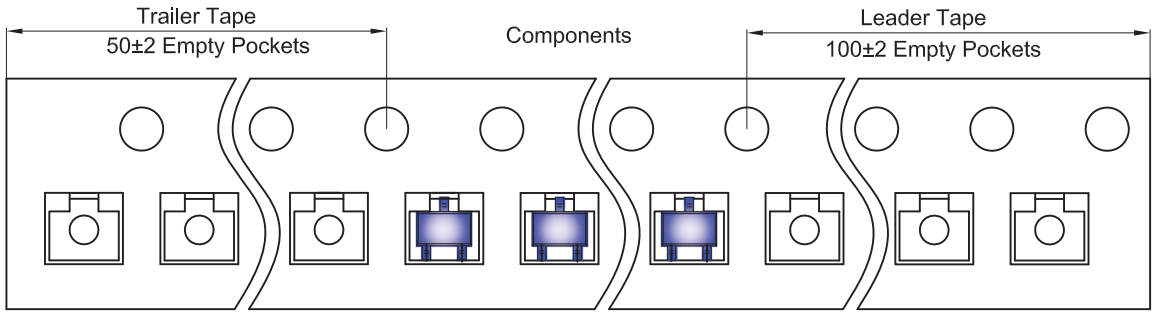
WPMtek

SOT-323 Embossed Carrier Tape

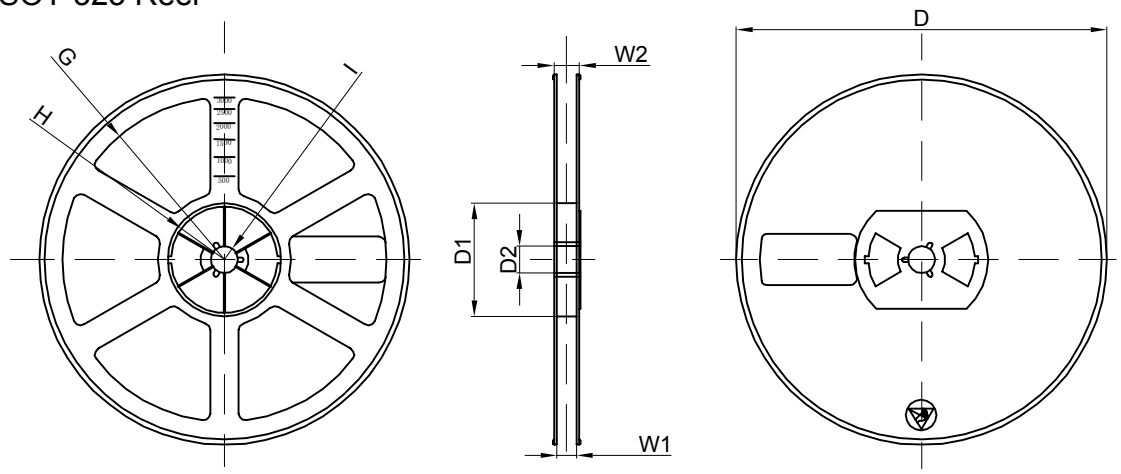


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-323	2.25	2.55	1.19	Ø1.55	1.75	3.50	4.00	4.00	2.00	8.00

SOT-323 Tape Leader and Trailer



SOT-323 Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	45,000 pcs	192x182x182	180,000 pcs	400x385x205	

WPMtek reserves the right to make changes to the product specification and data in this document without notice. WPMtek makes no warranty, representation or guarantee regarding the suitability of its products for any particu lar purpose, nor does WPMtek assume any liability arising from the application or use of any products or circuits, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. Any enquiry ,please write to sales@wpmtek.com for futher information.