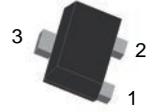
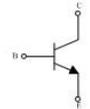
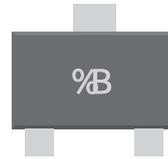


VhV h - ü

PRIMARY CHARACTERISTICS	
P_C	0.1W
V_{CEO}	40V
I_C	0.2A
$V_{CE(sat)}$	0.2V
h_{FE}	40~300
$T_{J,Max}$	150°C

SOT-723 PACKAGE

 • Body Marking Example
Marking :%B

 1. BASE
2. EMITTER
3. COLLECTUÜ

FEATURES

- complementary to MMBT3906M
- Small Package
- Moisture Sensitivity Level 1

MECHANICAL DATA

- Case : Molded plastic, SOT-723
- Polarity : As Above Marked
- Terminals :Plated terminals, solderable per MIL-STD-750, Method 2026
- Epoxy : UL94-V0 rated flame retardant

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless otherwise noted)

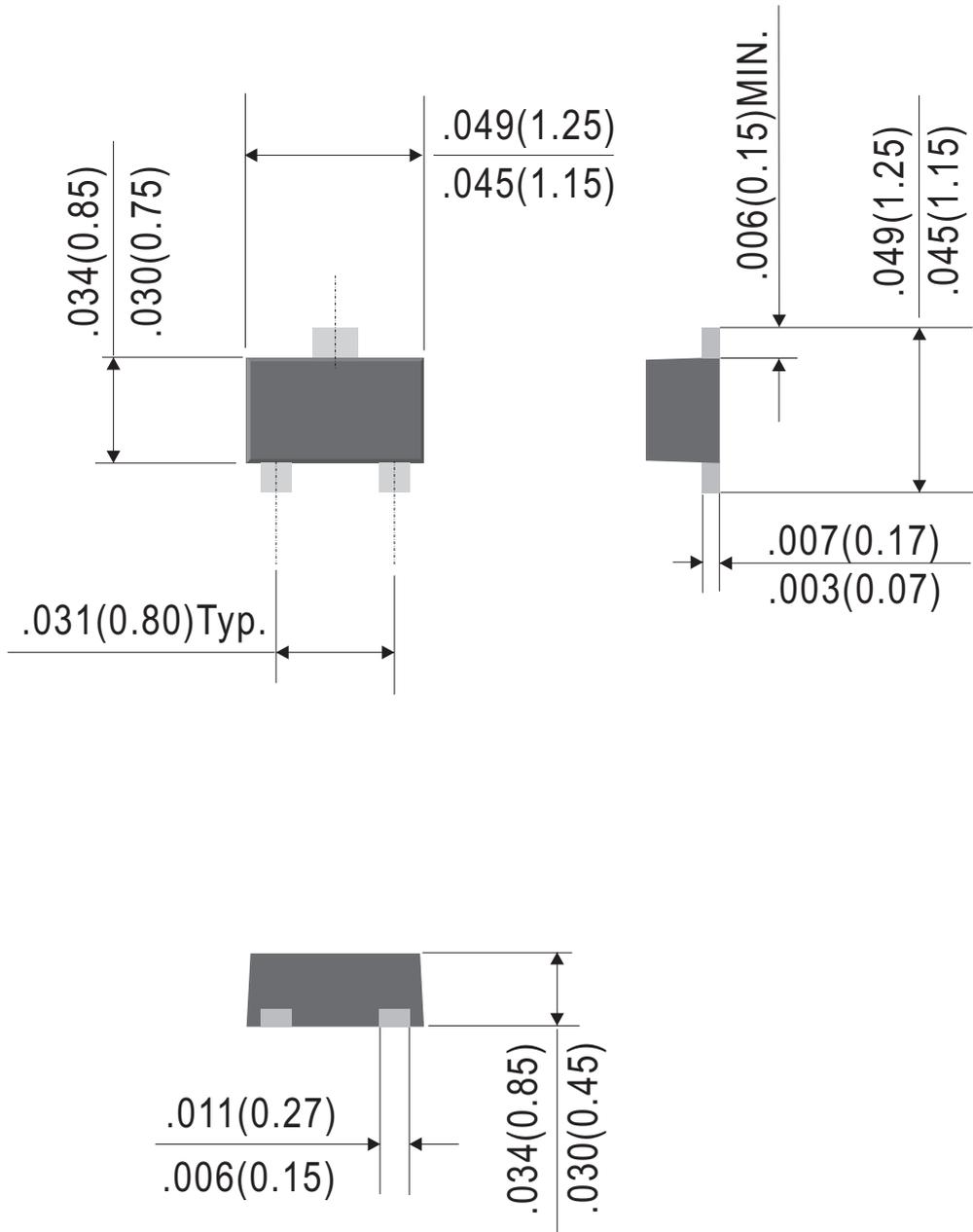
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	40	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current -Continuous	0.2	A
P_C	Power Dissipation	0.1	W
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	1250	°C/W
T_J	Junction Temperature	150	°C
T_{stg}	Storage Temperature	-55~+150	°C

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu\text{A}, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}, I_B=0$	40			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu\text{A}, I_C=0$	6			V
Collector cut-off current	I_{CEX}	$V_{CE}=30\text{V}, V_{EB(off)}=3\text{V}$			50	nA
Emitter cut-off current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$			100	nA
DC current gain	$h_{FE(1)}$	$V_{CE}=1\text{V}, I_C=0.1\text{mA}$	40			
	$h_{FE(2)}$	$V_{CE}=1\text{V}, I_C=1\text{mA}$	70			
	$h_{FE(3)}$	$V_{CE}=1\text{V}, I_C=10\text{mA}$	100		300	
	$h_{FE(4)}$	$V_{CE}=1\text{V}, I_C=50\text{mA}$	60			
Collector-emitter saturation voltage	$V_{CE(sat)1}$	$I_C=10\text{mA}, I_B=1\text{mA}$			0.2	V
	$V_{CE(sat)2}$	$I_C=50\text{mA}, I_B=5\text{mA}$			0.3	V
Base-emitter saturation voltage	$V_{BE(sat)1}$	$I_C=10\text{mA}, I_B=1\text{mA}$	0.65		0.85	V
	$V_{BE(sat)2}$	$I_C=50\text{mA}, I_B=5\text{mA}$			0.95	V
Transition frequency	f_r	$V_{CE}=20\text{V}, I_C=10\text{mA}, f=100\text{MHz}$	300			MHz
Output capacitance	C_{ob}	$V_{CB}=5\text{V}, I_E=0, f=1\text{MHz}$			4	pF
Input capacitance	C_{ib}	$V_{EB}=0.5\text{V}, I_C=0, f=1\text{MHz}$			8	pF
Noise figure	NF	$V_{CE}=5\text{V}, I_C=0.1\text{mA}, f=1\text{MHz}, R_S=1\text{k}\Omega$			5	dB
Delay time	t_d	$V_{CC}=3\text{V}, V_{BE(off)}=-0.5\text{V}, I_C=10\text{mA}, I_B=1\text{mA}$			35	ns
Rise time	t_r				35	ns
Storage time	t_s	$V_{CC}=3\text{V}, I_C=10\text{mA}$			200	ns
Fall time	t_f	$I_{B1}=I_{B2}=1\text{mA}$			50	ns

Outline Drawing

SOT-723

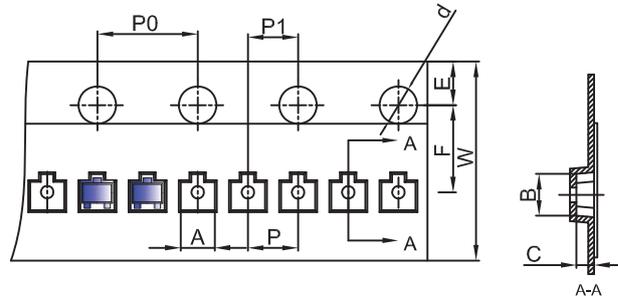


Dimensions in inches and (millimeters)

Rev.D

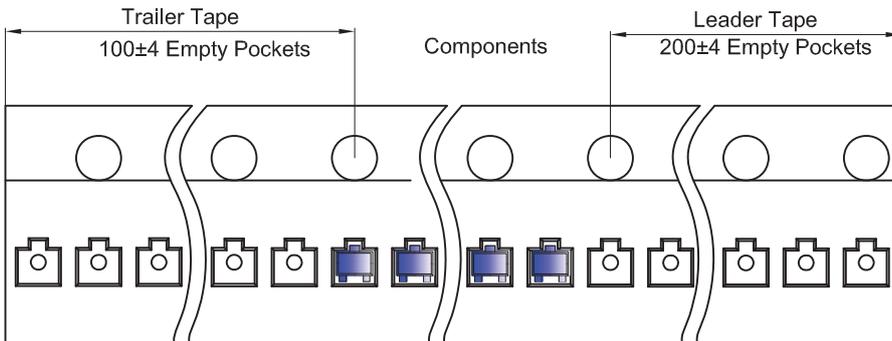
SOT-723 Tape and Reel

SOT-723 Embossed Carrier Tape

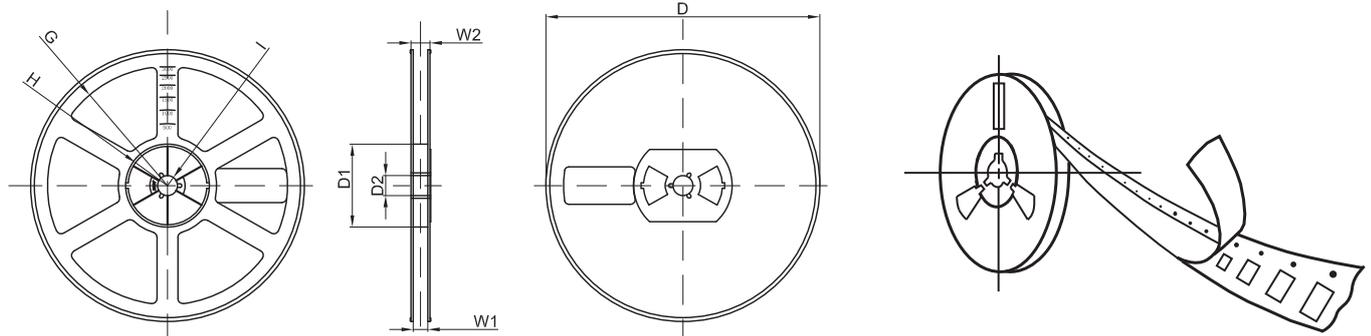


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-723	1.33	1.45	0.61	Ø1.50	1.75	3.50	4.00	2.00	2.00	8.00
(Tolerance)	+/-0.05	+/-0.05	+/-0.05	+/-0.1	+/-0.1	+/-0.1	+/-0.1	+/-0.1	+/-0.1	+0.3/-0.1

SOT-723 Tape Leader and Trailer



SOT-723 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
Tolerance	+/-2	+/-1	+/-1	+/-1	+/-1	+/-1	+/-1	+/-1

Ordering Information:

Device PN	Packing
UU"u U -T ⁽¹⁾ G ⁽²⁾ -WS	Tape&Reel: Kpcs/Reel

Note: (1) Packing code, Tape & Reel

(2) RoHS product for packing code suffix "G" ; Halogen free product for packing code suffix "H"

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