

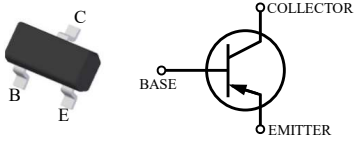


AMMBTA92H / AMMBTA93H

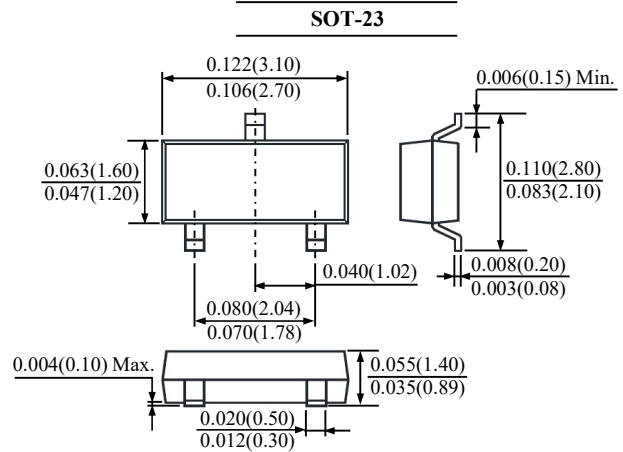
PNP TRANSISTORS

FEATURES

- AEC-Q101 qualified
- Suffix "H" indicates Halogen-free parts, ex. AMMBTA92H



B	Base
C	Collector
E	Emitter



Dimension in inches and (millimeters)

Maximum Ratings ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter		Symbol	Value	Unit
Collector Base Voltage	AMMBTA92H	V_{CBO}	-300	V
	AMMBTA93H		-200	
Collector Emitter Voltage	AMMBTA92H	V_{CEO}	-300	V
	AMMBTA93H		-200	
Emitter Base Voltage		V_{EBO}	-5	V
Collector Current		I_C	-500	mA
Power Dissipation		P_D	350	mW
Junction Temperature		T_J	150	$^\circ\text{C}$
Storage Temperature Range		T_{stg}	- 55 to + 150	$^\circ\text{C}$



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Electrical Characteristics ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise specified)

Parameter	Conditions	Symbol	Min.	Max.	Unit
DC Current Gain	$V_{CE} = -10\text{V}$, $I_C = -1\text{mA}$	h_{FE}	25	-	-
	$V_{CE} = -10\text{V}$, $I_C = -10\text{mA}$		80	200	
	$V_{CE} = -10\text{V}$, $I_C = -30\text{mA}$		25	-	
Collector Base Cutoff Current	$V_{CB} = -200\text{V}$	I_{CBO}	-	-0.25	μA
	$V_{CB} = -160\text{V}$		-	-0.25	
Emitter Base Cutoff Current	$V_{EB} = -3\text{V}$	I_{EBO}	-	-0.10	μA
Collector Base Breakdown Voltage	$I_C = -100\mu\text{A}$	$V_{(BR)CBO}$	AMMBTA92H -300	-	V
			AMMBTA93H -200	-	
Collector Emitter Breakdown Voltage	$I_C = -1\text{mA}$	$V_{(BR)CEO}$	AMMBTA92H -300	-	V
			AMMBTA93H -200	-	
Emitter Base Breakdown Voltage	$I_E = -100\mu\text{A}$	$V_{(BR)EBO}$	-5	-	V
Collector Emitter Saturation Voltage	$I_C = -20\text{mA}$, $I_B = -2\text{mA}$	$V_{CE(sat)}$	-	-0.50	V
Base Emitter Saturation Voltage	$I_C = -20\text{mA}$, $I_B = -2\text{mA}$	$V_{BE(sat)}$	-	-0.90	V
Current Gain Bandwidth Product	$V_{CE} = -20\text{V}$, $I_C = -10\text{mA}$, $f = 100\text{MHz}$	f_T	50	-	MHz
Output Capacitance	$V_{CB} = -20\text{V}$, $f = 1\text{MHz}$	C_{ob}	AMMBTA92H -	6	pF
			AMMBTA93H -	8	



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RATINGS AND CHARACTERISTIC CURVES

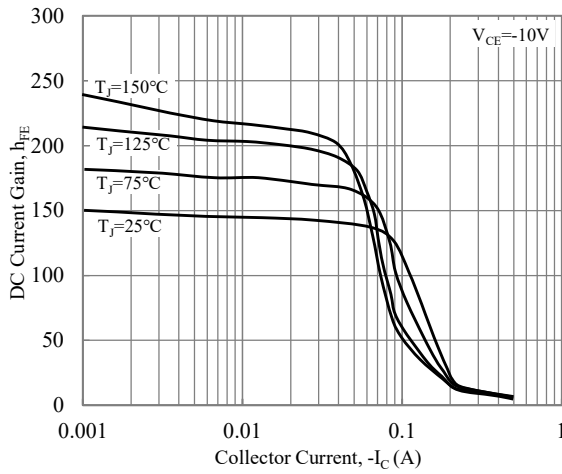


Fig. 1 Current Gain vs. Collector Current

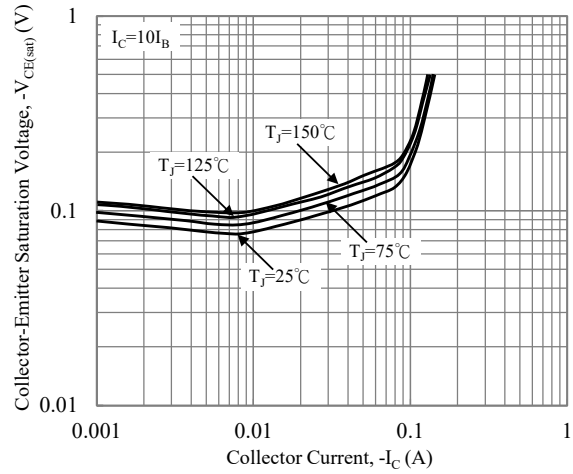


Fig. 2 Collector-Emitter Saturation Voltage vs. Collector Current

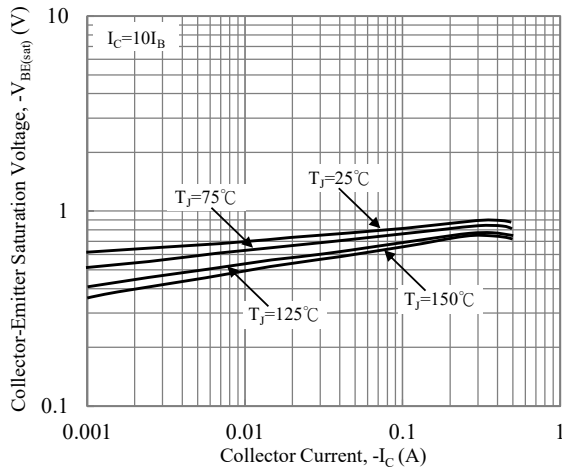


Fig. 3 Base-Emitter Saturation Voltage vs. Collector Current

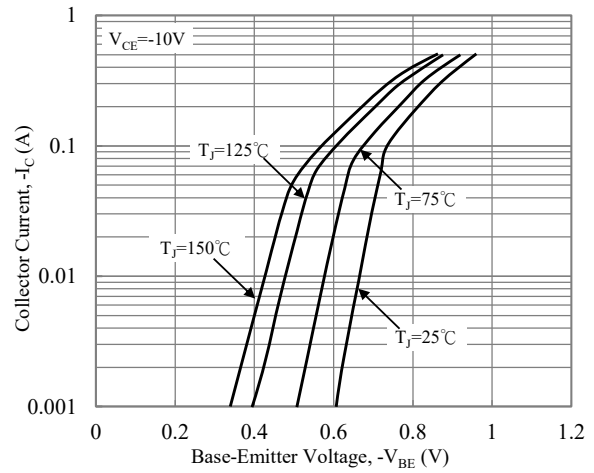


Fig. 4 Base-Emitter Voltage vs. Collector Current

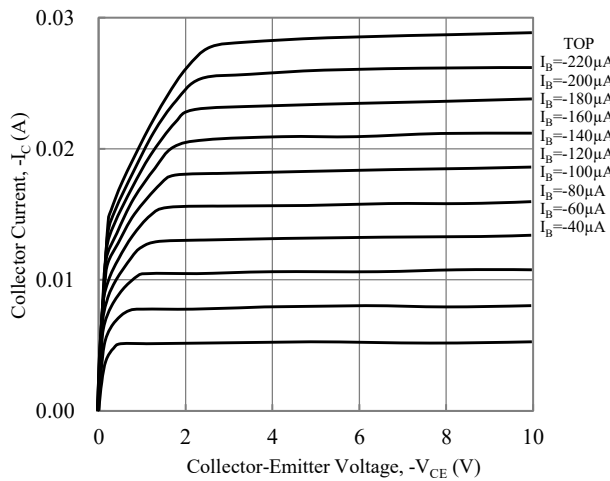


Fig. 5 Output Characteristics Curves

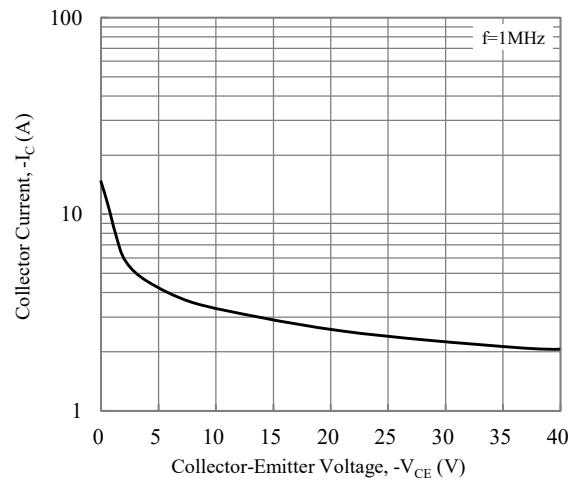


Fig. 6 Output Characteristics Curves



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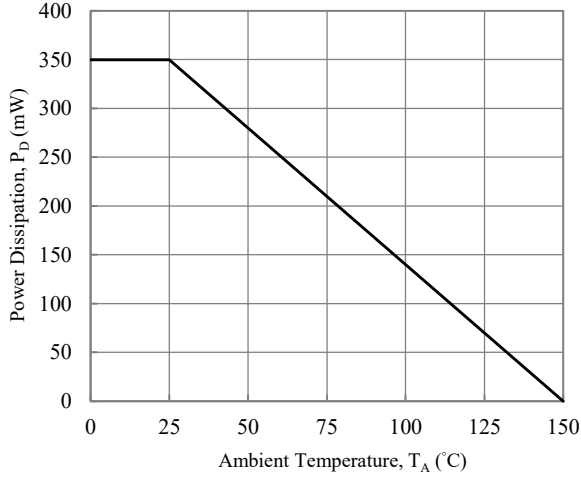


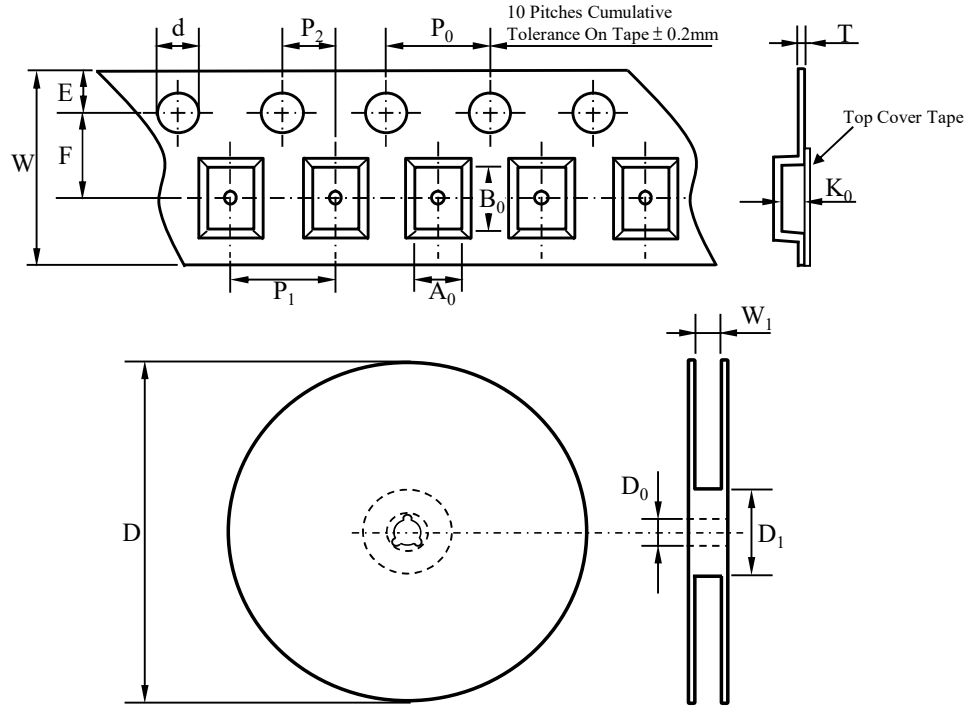
Fig. 7 Power Derating Curves



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TAPE & REEL SPECIFICATION



Item	Symbol	SOT-23
Carrier width	A_0	*
Carrier length	B_0	
Carrier depth	K_0	
Sprocket hole	d	1.50 ± 0.10
Reel outside diameter	D	178.00 ± 2.00
Feed hole width	D_0	13.00 ± 0.50
Reel inner diameter	D_1	MIN. 50.00
Sprocket hole position	E	1.75 ± 0.10
Punch hole position	F	3.50 ± 0.10
Sprocket hole pitch	P_0	4.00 ± 0.10
Punch hole pitch	P_1	4.00 ± 0.10
Embossment center	P_2	2.00 ± 0.10
Overall tape thickness	T	0.20 ± 0.05
Tape width	W	8.00 ± 0.20
Reel width	W1	MAX. 14.50

Note *: A_0 , B_0 , and K_0 are determined by component size. The clearance between the components and the cavity must be within 0.05 mm min. to 0.5 mm max.

ORDER INFORMATION

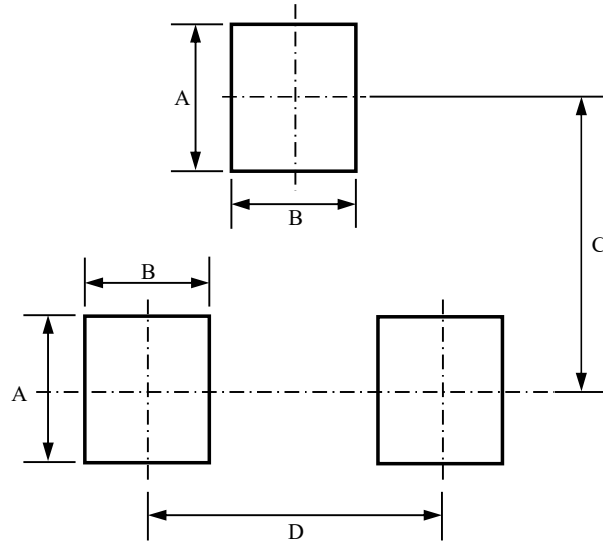
Part Number	Marking Code	Reel Size	Quantity
AMMBTA92H	2D	7"	3,000
AMMBTA93H			



AMMBTA92H / AMMBTA93H

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SUGGESTED SOLDER PAD LAYOUT



Unit :mm

PACKAGE	A	B	C	D
SOT-23	1.00	0.80	2.00	1.90