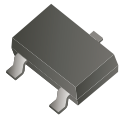
General Purpose Transistor

AMMBT2907A-HF (PNP)

RoHS Device

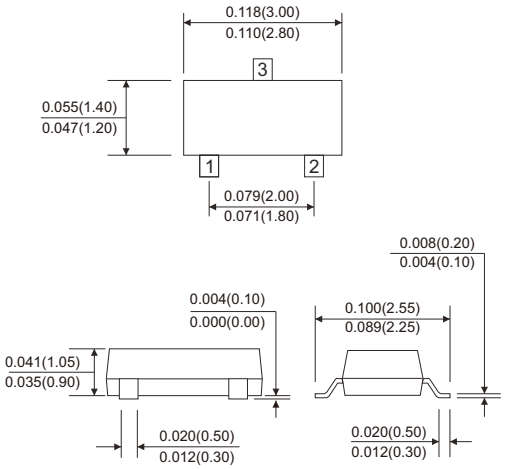
Halogen Free



Features

- Epoxy meets UL-94 V-0 flammability rating.
- Moisture sensitivity Level 1.
- High conductance.
- AEC-Q101 Qualified

SOT-23



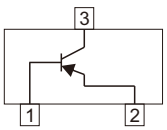
Dimensions in inches and (millimeter)

Mechanical data

- Case: SOT-23, molded plastic.
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102.

Circuit diagram

1. Base
2. Emitter
3. Collector



Maximum Ratings (at Ta=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-base voltage	V_{CBO}	-60	V
Collector-emitter voltage	V_{CEO}	-60	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current-continuous	I_C	-600	mA
Total device dissipation	P_D	300	mW
Junction temperature	T_J	150	°C
Storage temperature range	T_{STG}	-55 to +150	°C

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Electrical Characteristics (at Ta=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Max	Unit
Collector-emitter breakdown voltage	I_C =-10mA , I_B=0	$V_{(BR)CEO}$	-60		V
Collector-base breakdown voltage	I_C =-10μA , I_E=0	$V_{(BR)CBO}$	-60		V
Emitter-base breakdown voltage	I_E =-10μA , I_C=0	$V_{(BR)EBO}$	-5		V
Collector cut-off current	V_{CE}=-30V , V_{EB}=-0.5V	I_{CEX}		-50	nA
Collector cut-off current	V_{CB}=-50V , I_E=0	I_{CBO}		-20	nA
DC current gain	V_{CE}=-10V , I_C=-0.1mA	$h_{FE(1)}$	75		
	V_{CE}=-10V , I_C=-1mA	$h_{FE(2)}$	100		
	V_{CE}=-10V , I_C=-10mA	$h_{FE(3)}$	100		
	V_{CE}=-10V , I_C=-150mA	$h_{FE(4)}$	100	300	
	V_{CE}=-10V , I_C=-500mA	$h_{FE(5)}$	50		
Collector-emitter saturation voltage	I_C=-150mA , I_B=-15mA I_C=-500mA , I_B=-50mA	$V_{CE(sat)}$		-0.4 -1.6	V
Base-emitter saturation voltage	I_C=-150mA , I_B=-15mA I_C=-500mA , I_B=-50mA	$V_{BE(sat)}$		-1.3 -2.6	V
Transition frequency	V_{CE}=-20V , I_C=-50mA, f=100MHz	f_T	200		MHz
Delay time	V_{CC}=-30V , I_C=-150mA , I_{B1}=-15mA	t_d		10	ns
Rise time		t_r		40	ns
Storage time	V_{CC}=-6V , I_C=-150mA , I_{B1}=I_{B2}=-15mA	t_s		225	ns
Fall time		t_f		60	ns

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Rating and Characteristic Curves (AMMBT2907A-HF)

Fig.1 - Collector Saturation Region

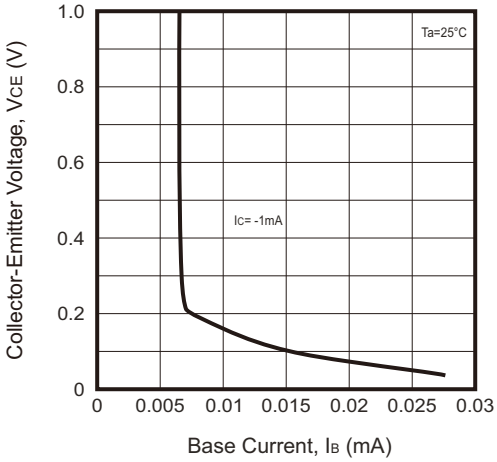


Fig.2 - Collector Saturation Region

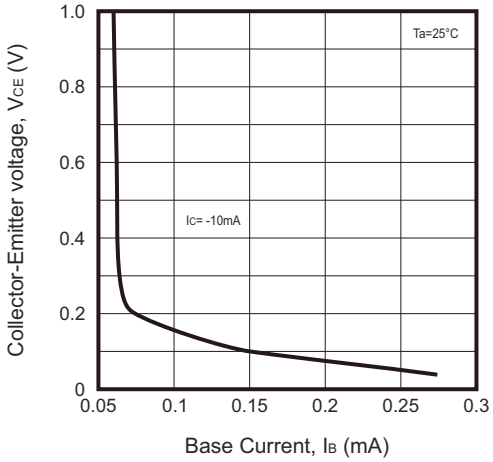


Fig.3 - Collector Saturation Region

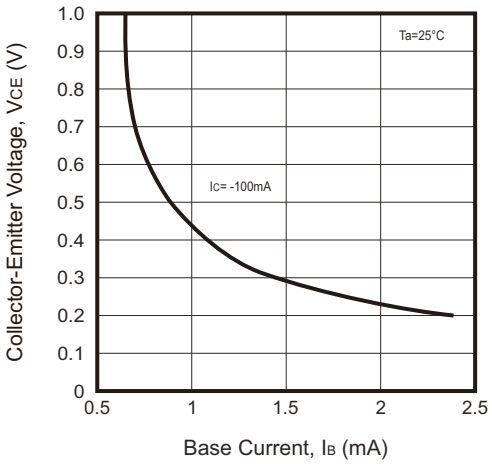


Fig.4 - DC Current Gain

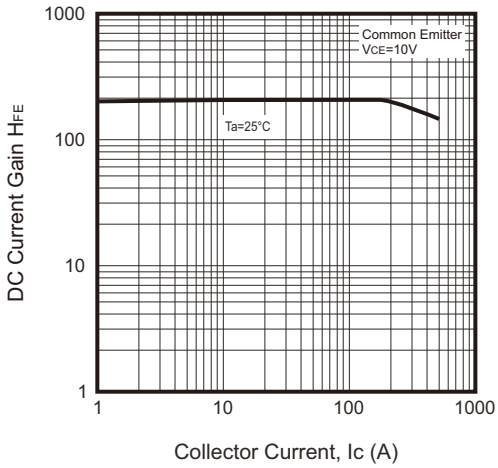


Fig.5 - Base-Emitter Saturation Voltage vs. Collector Current

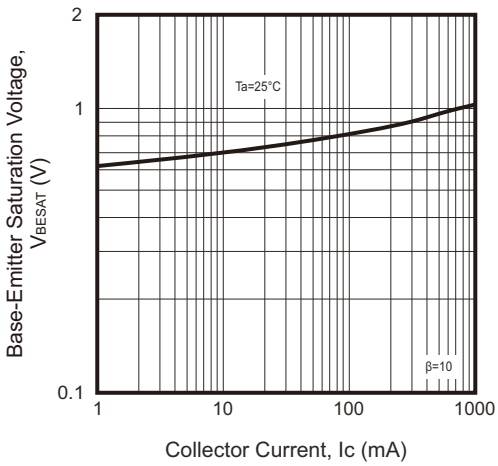
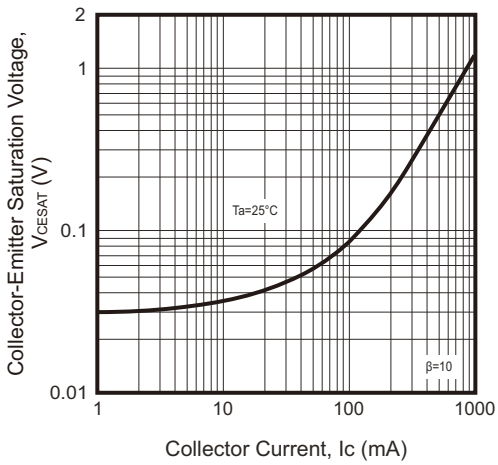


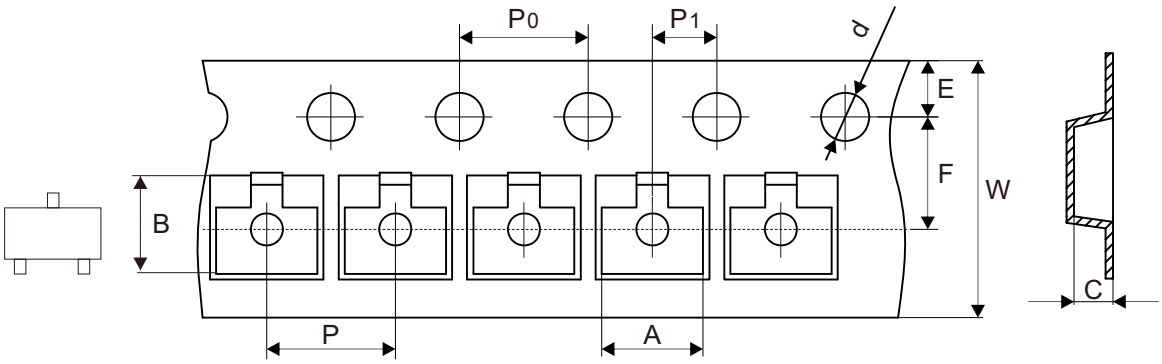
Fig.6 - Collector-Emitter Saturation Voltage vs. Collector Current

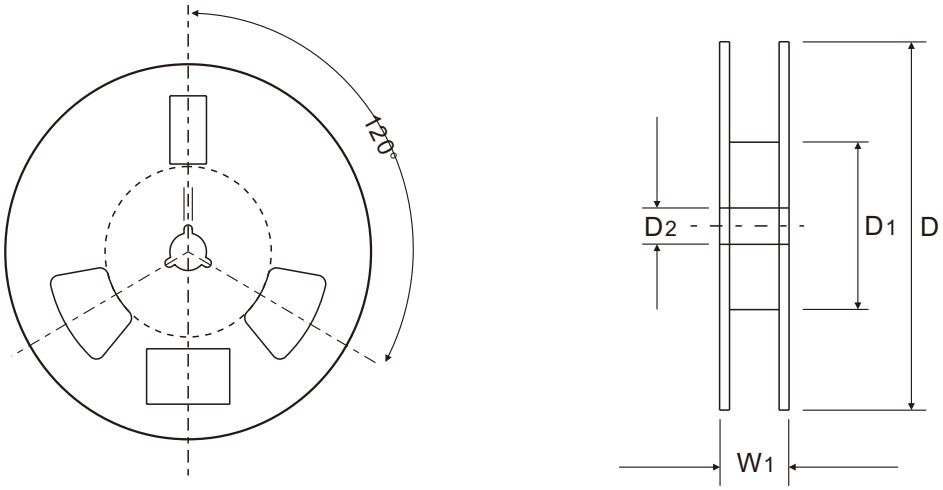


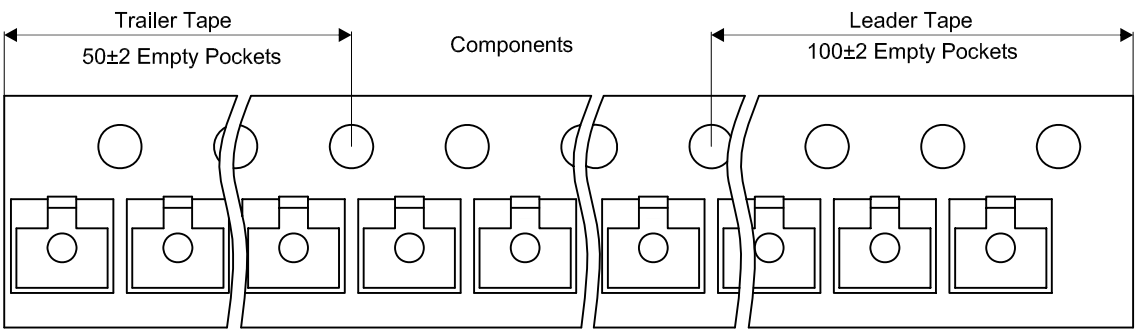
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Reel Taping Specification







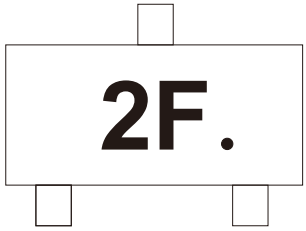
	SYMBOL	A	B	C	d	D	D1	D2
SOT-23	(mm)	3.15 ± 0.10	2.77 ± 0.10	1.22 ± 0.10	1.50 + 0.10 − 0.00	178.00 ± 1.00	54.60 ± 1.00	13.30 ± 1.00
	(inch)	0.124 ± 0.004	0.109 ± 0.004	0.048 ± 0.004	0.059 + 0.004 − 0.000	7.008 ± 0.039	2.150 ± 0.039	0.524 ± 0.039

	SYMBOL	E	F	P	P0	P1	W	W1
SOT-23	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	8.00 + 0.30 − 0.10	11.10 ± 0.20
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.315 + 0.012 − 0.004	0.437 ± 0.008

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Marking Code

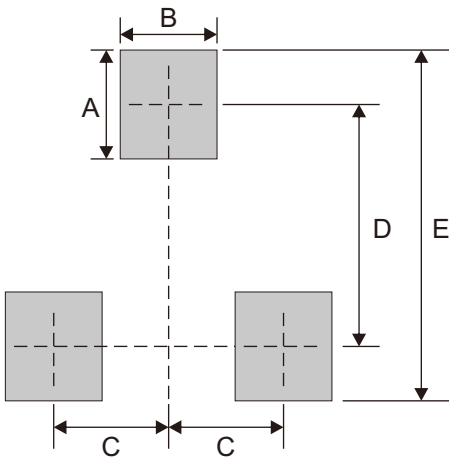
Part Number	Marking Code
AMMBT2907A-HF	2F.



Suggested PAD Layout

SIZE	SOT-23	
	(mm)	(inch)
A	0.90	0.035
B	0.80	0.031
C	0.95	0.037
D	2.00	0.079
E	2.90	0.114

Note: 1. The pad layout is for reference purposes only.



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOT-23	3,000	7

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