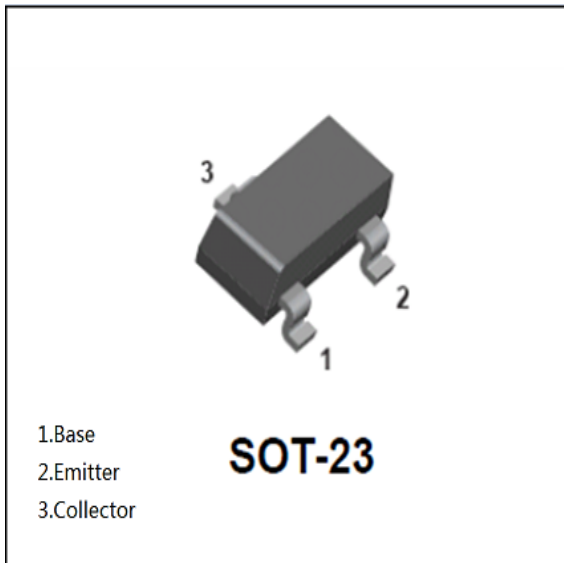


PNP Silicon High Voltage Transistor



Features

- Epoxy meets UL-94 V-0 flammability rating
- Halogen free available upon request by adding suffix "HF"
- Moisture Sensitivity Level 1
- Surface mount package ideally Suited for Automatic Insertion
- PNP

Mechanical Data

- **Package:** SOT-23
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking:** 2D

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

Item	Symbol	Unit	Conditions	Value
Collector-Base Voltage	V_{CBO}	V	$I_C=-100\mu A, I_E=0$	-300
Collector-Emitter Voltage	V_{CEO}	V	$I_C=-1mA, I_B=0$	-300
Emitter-Base Voltage	V_{EBO}	V	$I_E=-100\mu A, I_C=0$	-5
Collector Current	I_C	mA		-300
Collector Power Dissipation	P_C	mW		300
Operation Junction Temperature	T_j	°C		-55 to +150
Storage Temperature	T_{stg}	°C		-55 to +150

■Electrical Characteristics (Ta=25°C Unless otherwise specified)

Item	Symbol	Unit	Conditions	Min	Max
Collector-base breakdown voltage	V_{CBO}	V	$I_C=-100\mu A, I_E=0$	-300	
Collector-emitter breakdown voltage	V_{CEO}	V	$I_C=-1mA, I_B=0$	-300	
Emitter-base breakdown voltage	V_{EBO}	V	$I_E=-100\mu A, I_C=0$	-5	
Collector-base cut-off current	I_{CBO}	nA	$V_{CB}=-200V, I_E=0$		-250
Emitter-base cut-off current	I_{EBO}	nA	$V_{EB}=-5V, I_C=0$		-100
DC current gain	h_{FE}		$V_{CE}=-10V, I_C=-1mA$	60	
	h_{FE}		$V_{CE}=-10V, I_C=-10mA$	100	200
	h_{FE}		$V_{CE}=-10V, I_C=-30mA$	60	
Collector-emitter saturation voltage	$V_{CE(sat)}$	V	$I_C=-20mA, I_B=-2mA$		-0.2
Base-emitter saturation voltage	$V_{BE(sat)*}$	V	$I_C=-20mA, I_B=-2mA$		-0.9

■Other Characteristics (T_a=25°C Unless otherwise specified)

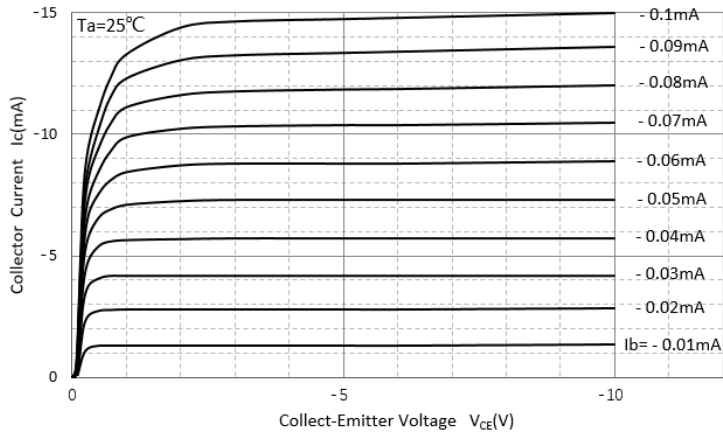
Item	Symbol	Unit	Conditions	Min	Max
Transition frequency	Ft	MHz	VCE=-20V, IC=-10mA, f=30MHz	50	

■Ordering Information (Example)

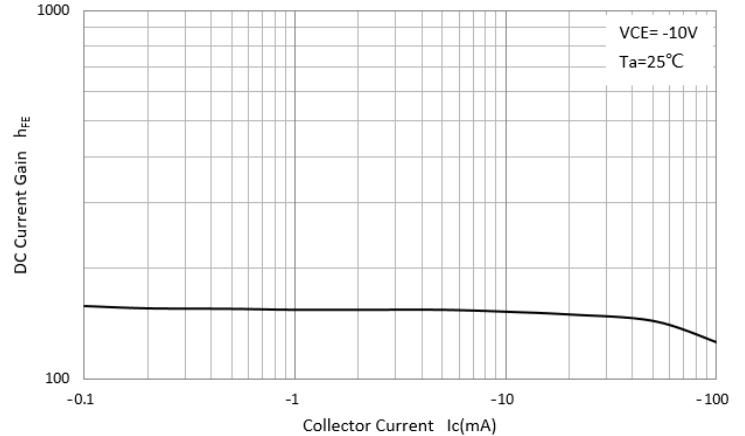
PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MMBTA92	F2	Approximate 0.009	3000	30000	120000	7" reel

■Characteristics(Typical)

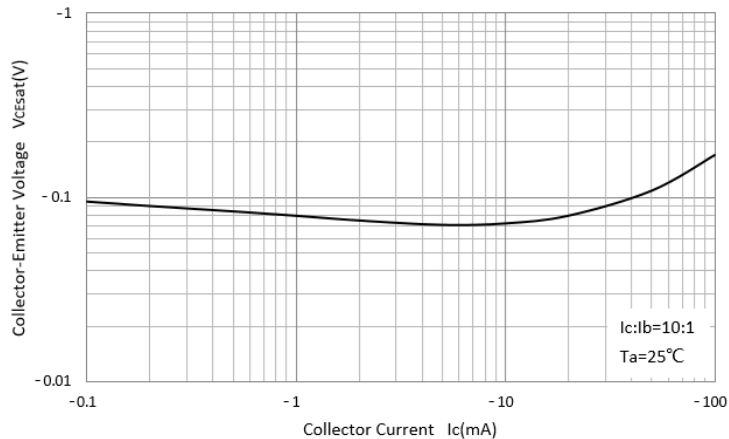
Static Characteristic



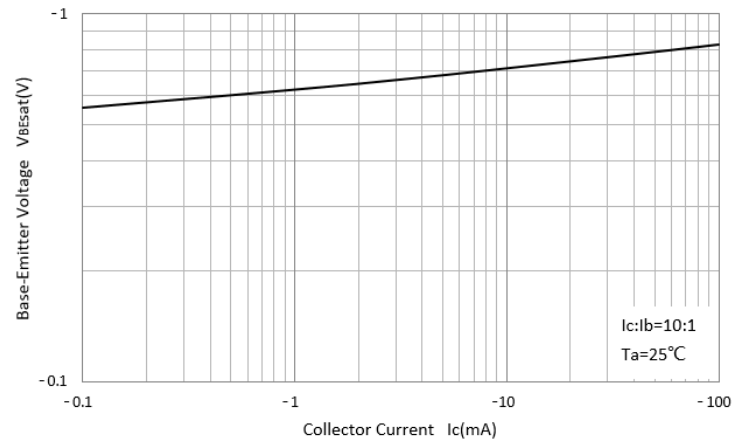
DC Current Gain



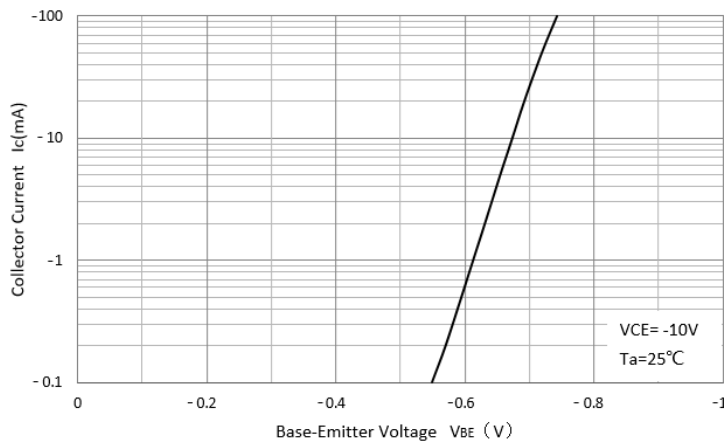
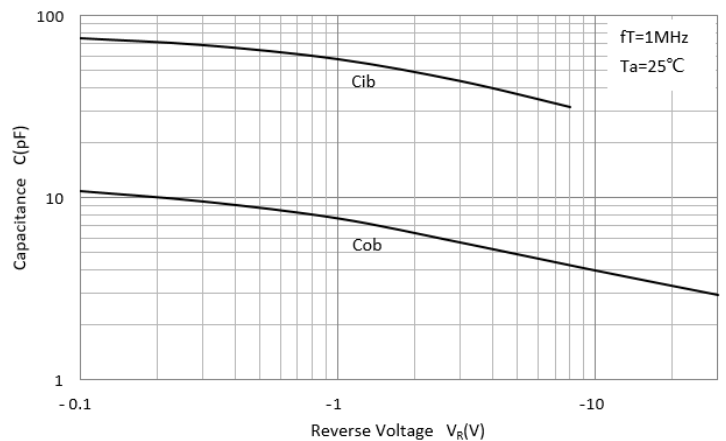
Collector-Emitter Saturation Voltage



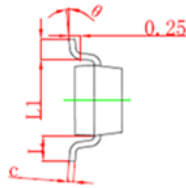
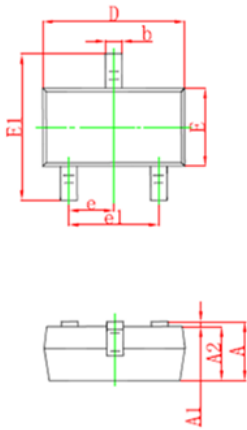
Base-Emitter Saturation Voltage



Base-Emitter On Voltage

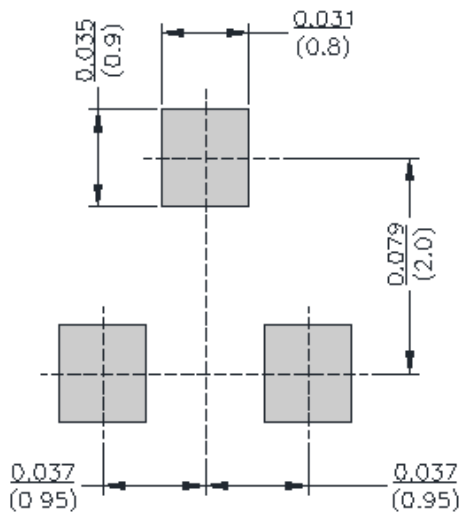
Cob/Cib-V_{CB}/V_{EB}

■SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.550REF		0.022REF	
L1	0.300	0.500	0.012	0.020
ø	0°	8°	0°	8°

■SOT-23 Soldering Footprint





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