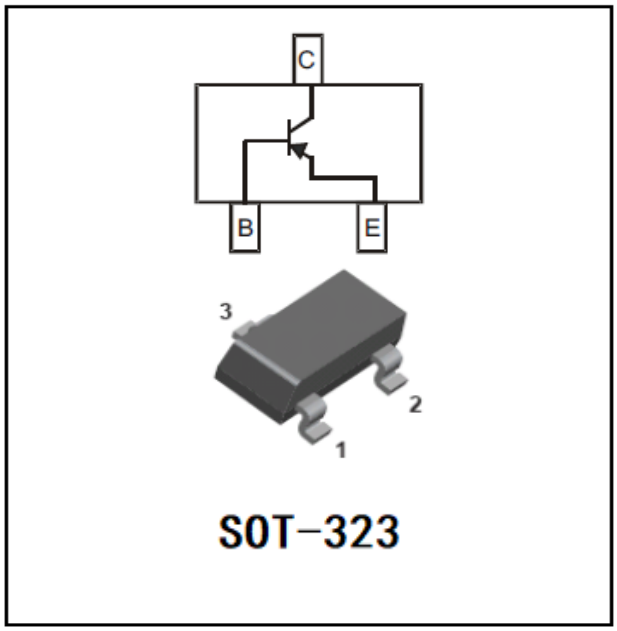
PNP Transistor



Features

- ●Epoxy meets UL-94 V-0 flammability rating
- ●Halogen free available upon request by adding suffix ”HF”
- ●Moitsure Sensitivity Level 1
- ●High Conductance
- ●Surface Mount Package Ideally Suited for Automatic Insertion

Mechanical Data

- ● **Package**: SOT-323

Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free

- ● **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- ● **Marking**: K3F

■ Maximum Ratings (Ta=25℃ unless otherwise noted)

Item	Symbol	Unit	Value
Collector-Base Voltage	V_{CBO}	V	-60
Collector-Emitter Voltage	V_{CEO}	V	-60
Emitter-Base Voltage	V_{EBO}	V	-5
Collector Current	I_C	mA	-600
Collector Power Dissipation	P_C	mW	200
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	℃/W	417
Thermal Resistance From Junction-To-Case	$R_{\theta J-C}$	℃/W	334
Operation Junction Temperature	T_j	℃	-55 to +150
Storage Temperature	T_{stg}	℃	-55 to +150

■ Electrical Characteristics (Ta=25℃ unless otherwise noted)

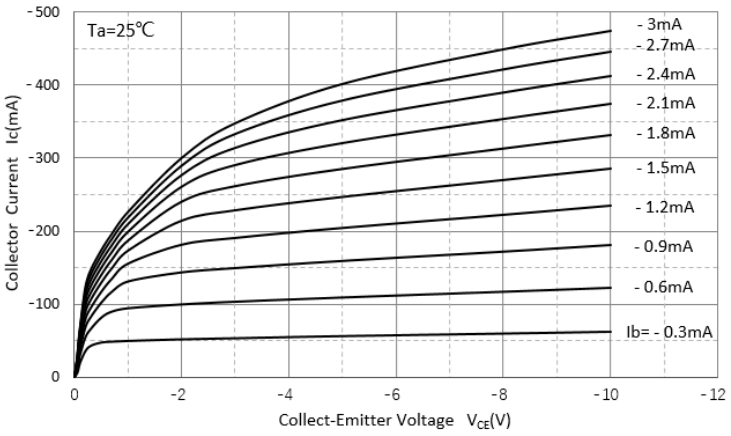
Item	Symbol	Unit	Conditions	Min	Typ	Max
Collector-base breakdown voltage	V_{CBO}	V	IC=-10uA,IE=0	-60		
Collector-emitter breakdown voltage	V_{CEO*}	V	IC =-10mA,IB=0	-60		
Emitter-base breakdown voltage	V_{EBO}	V	IE=-10μA,IC=0	-5		
Collector-emitter cut-off current	I_{CEO}	nA	VCE=-35V, IB=0			-50
Collector-base cut-off current	I_{CBO}	nA	VCB=-50V, IE =0			-10
Emitter-base cut-off current	I_{EBO}	nA	VEB=-3 V, IC =0			-10
DC current gain	h_{FE}		VCE=-10V,IC=-1mA	100		
	h_{FE}		VCE=-10V,IC=-150mA	100		300
Collector-emitter saturation voltage	$V_{CE(sat)}$	V	IC=-500mA,IB=-50mA			-1.6
Base-emitter saturation voltage	$V_{BE(sat)}$	V	IC=-500mA,IB=-50mA			-2.6
Transition frequency	f_T	MHz	VCE=-20V,IC=-50mA,f=100MHz	200		
Delay time	td	ns	VCC=-30V, IC=-150mA,IB1=-15mA			10
Rise time	tr	ns				25
Storage time	ts	ns	VCC=-6V,IC=-150mA, IB1=IB2=-15mA			225
Fall time	tf	ns				60

■ Ordering Information (Example)

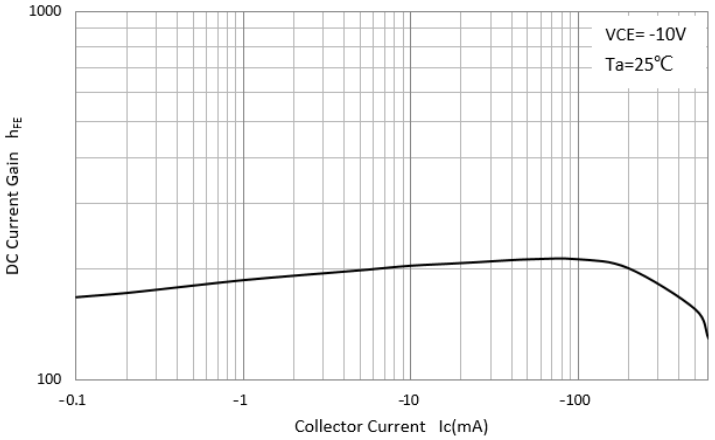
Prefered P/N	Packing Code	Unit Weight(G)	Minimum Package(Pcs)	Inner Box Quantity(Pcs)	Outer Carton Quantity(Pcs)	Delivery Mode
MMST2907A	F2	Approximate 0.005	3000	30000	120000	7” reel

■ **Characteristics** (Typical)

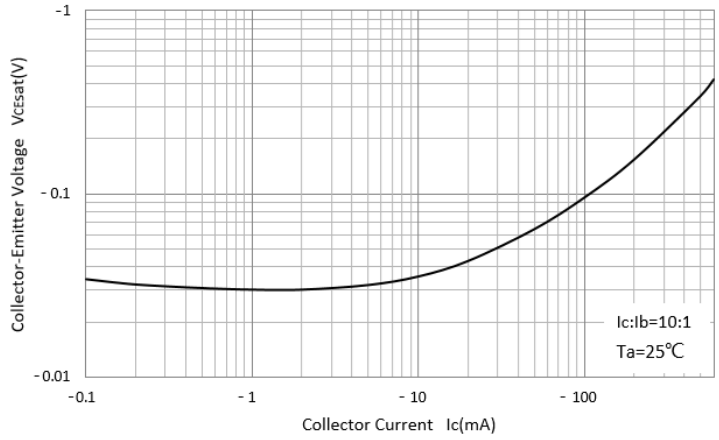
Static Characteristic



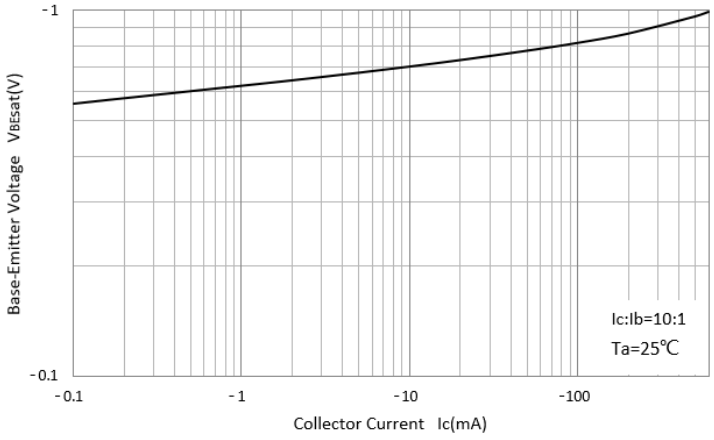
DC Current Gain



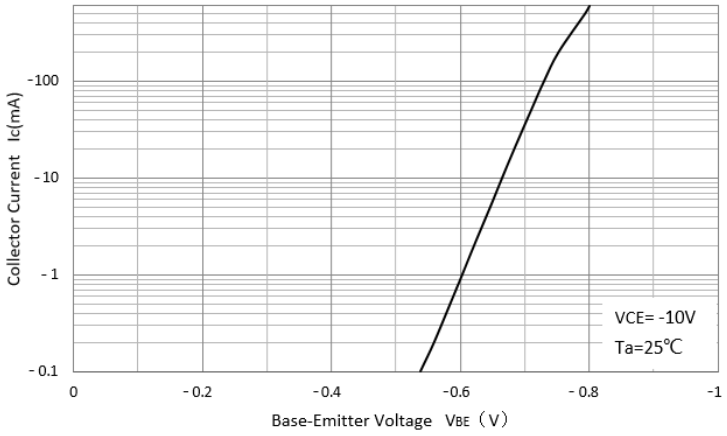
Collector-Emitter Saturation Voltage



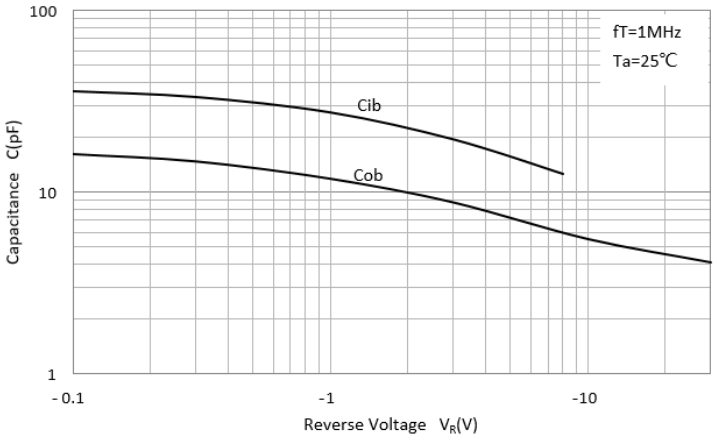
Base-Emitter Saturation Voltage



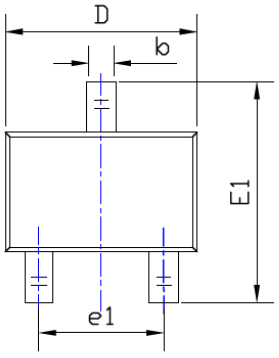
Base-Emitter On Voltage



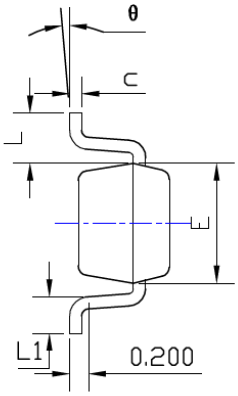
Cob/Cib-V_{CB}/V_{EB}



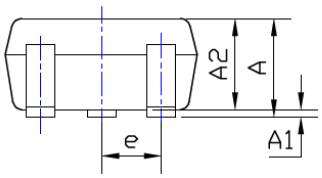
■ SOT-323 Package Outline Dimensions



TOP VIEW



SIDE VIEW

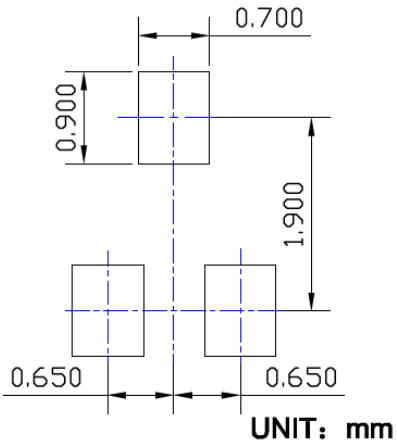


SIDE VIEW

SYMBOL	DIMENSIONS			
	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.035	0.043	0.900	1.100
A1	0.000	0.004	0.000	0.100
A2	0.035	0.039	0.900	1.000
b	0.006	0.016	0.150	0.400
c	0.004	0.010	0.100	0.250
D	0.071	0.087	1.800	2.200
E	0.045	0.053	1.150	1.350
E1	0.085	0.096	2.150	2.450
e	0.026TYP		0.650TYP	
e1	0.047	0.055	1.200	1.400
L	0.021REF		0.525REF	
L1	0.010	0.018	0.260	0.460
θ	0°	8°	0°	8°

Note:
1. All dimensions are in millimeters (mm) unless otherwise specified.
[所有尺寸均以毫米为单位，除非另有说明]
2. General tolerances: ±0.10mm unless otherwise specified.
[通用公差为±0.10mm，除非另有说明]
3. Dimensions and tolerances per ASME Y14.5M-2018.
[尺寸和公差遵循 ASME Y14.5M-2018 标准]
4.All dimensions shown are exclusive of burrs and gate residues.
Burrs and gate vestiges shall not exceed 0.15 mm in maximum.
[所有尺寸均不包括毛刺和浇口残留。毛刺与浇口残留的尺寸最大不得超过 0.15mm]
5.Dimension b does not include dambar protrusion of max 0.100 mm per side.
[尺寸b不包括单边最大0.100 MM的中筋凸出部分]
6.Dimensions D and E are the overall extreme outer dimensions of the mold compound. These dimensions exclude mold flash, lead flash, protrusions and burrs but include the maximum allowable mold mismatch.
[D和E是塑封体的外部极限尺寸，不包括包封溢料、内引线溢料、凸出部分以及胶体毛刺，但是包含了包封错位的最大尺寸]
7.Formed leads shall be planar with respect to one another within a maximum of 0.076 mm relative to the seating plane.
[成型的管脚应为同一平面，共面性最大为0.1mm]

■ SOT-323 Soldering Footprint



UNIT：mm

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