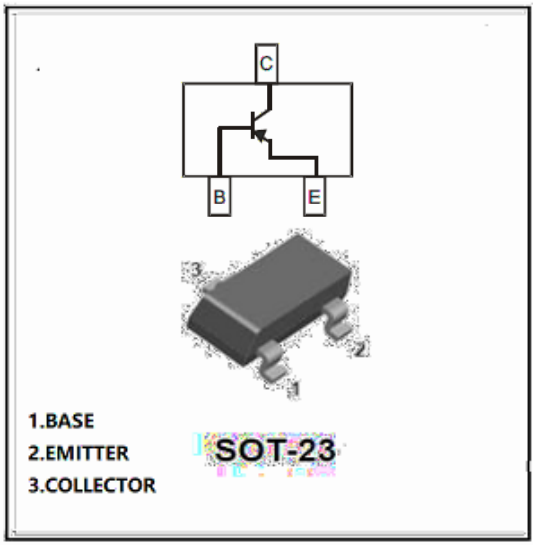
RoHS
COMPLIANT



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

- : SOT-23
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- Tin plated leads, solderable per J-STD-002 and JESD22-B102
-

MMBTA55	2H
MMBTA56	2GM

■ (Ta=25℃ unless otherwise noted)

Collector-Base Voltage	V_{CBO} MMBTA55 MMBTA56	-60 -80	V
Collector-Emitter Voltage	V_{CEO} MMBTA55 MMBTA56	-60 -80	V
Emitter-Base Voltage	V_{EBO}	-4	V
Collector Current	I_C	-500	mA
Collector Power Dissipation	P_C	300	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	417	/W
Operation Junction Temperature	T_j	-55 to +150	
Storage Temperature	T_{stg}	-55 to +150	

■ （T_a=25℃ Unless otherwise specified）

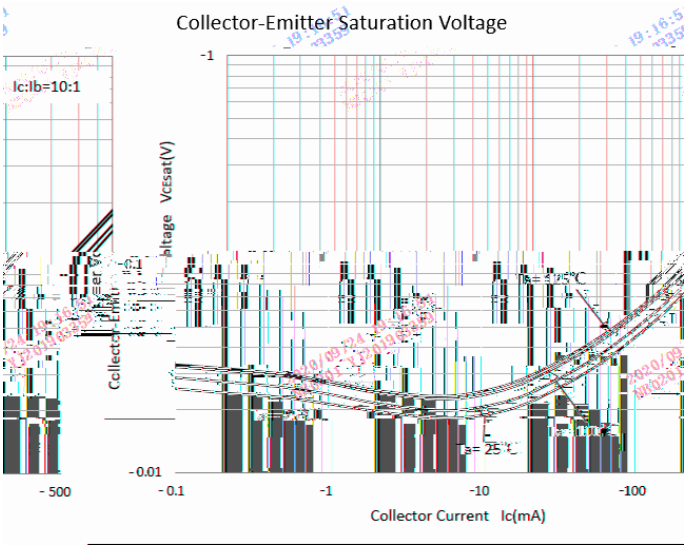
Collector-emitter breakdown voltage	V_{CEO}	V	I_C =-1mA,I_B=0 MMBTA55 MMBTA56	-60 -80	
Emitter-base breakdown voltage	V_{EBO}	V	I_E=-100μA,I_C=0	-4	
Collector-base cut-off current	I_{CBO}	μA	V_{CB}=-60V,I_E=0, MMBTA55 V_{CB}=-80V,I_E=0, MMBTA56		-0.1 -0.1
Collector-emitter cut-off current	I_{CES}	μA	V_{CE}=-60V, I_B=0V,		-0.1
DC current gain	h_{FE}		V_{CE}=-1V,I_C=-10mA	100	400
	h_{FE}		V_{CE}=-1V,I_C=-100mA	100	
Collector-emitter saturation voltage	$V_{CE(sat)}$	V	I_C=-100mA,I_B=-10mA		-0.25
Base-emitter saturation voltage	$V_{BE(sat)*}$	V	I_C=-100mA, I_B=-10mA		-1.2

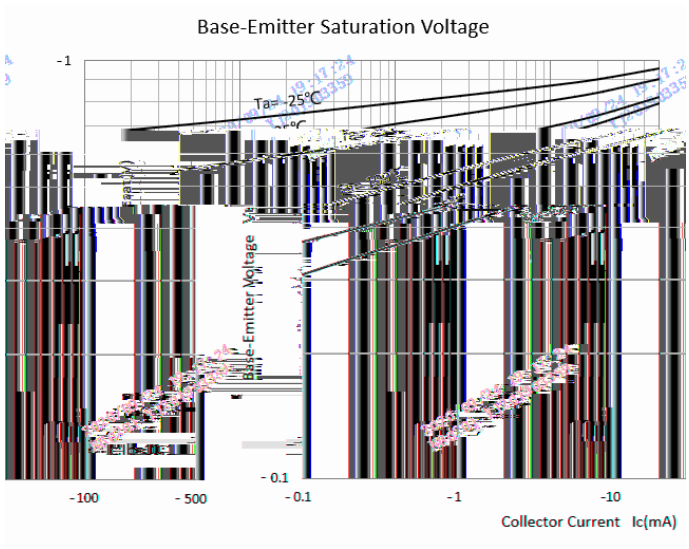
■ （T_a=25℃ Unless otherwise specified）

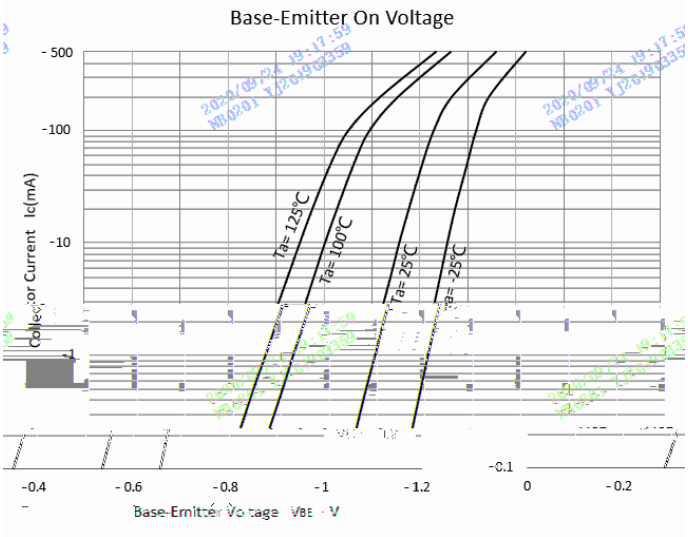
Transition frequency	fT	MHz	V_{CE}=-1V,I_C=-100mA,f=100MHz	50	

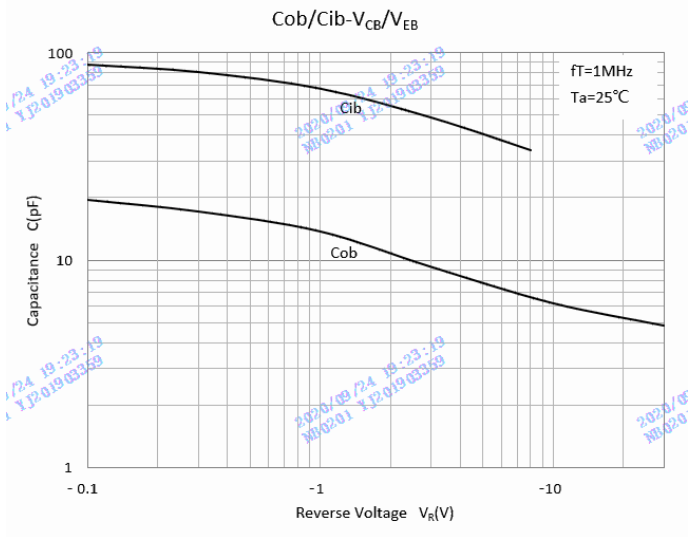
■ (Example)

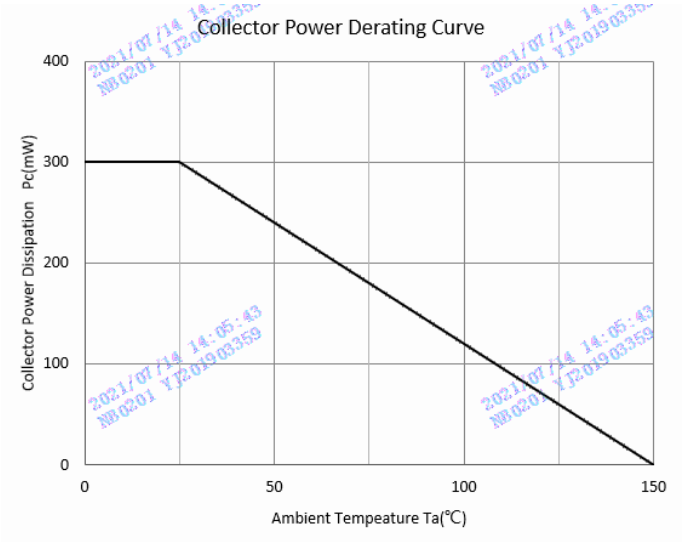
MMBTA55
MMBTA56


Collector-Emitter Saturation Voltage
Ic:Ib=10:1
-1
-0.01
- 500
- 0.1
-1
-10
-100
Collector Current Ic(mA)

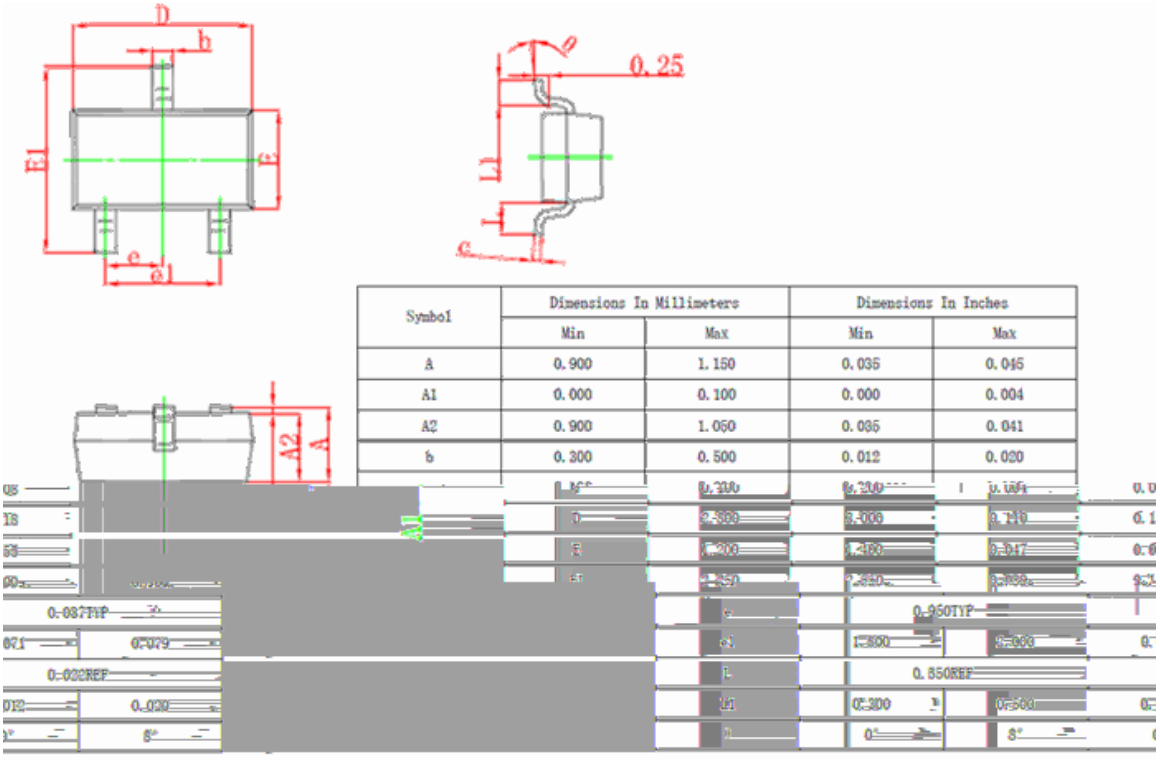

Base-Emitter Saturation Voltage
-1
Ta= -25°C
- 0.1
-100
- 500
-1
-10
Collector Current Ic(mA)


Base-Emitter On Voltage
- 500
-100
-10
-1
-0.1
Ta= 125°C
Ta= 100°C
Ta= 25°C
Ta= -25°C
-0.4
- 0.6
-0.8
-1
- 1.2
0
- 0.2


Cob/Cib-V$_{CB}$/V$_{EB}$
100
10
1
fT=1MHz
Ta=25℃
Cib
Cob
Capacitance C(pF)
- 0.1
-1
-10
Reverse Voltage V$_R$(V)

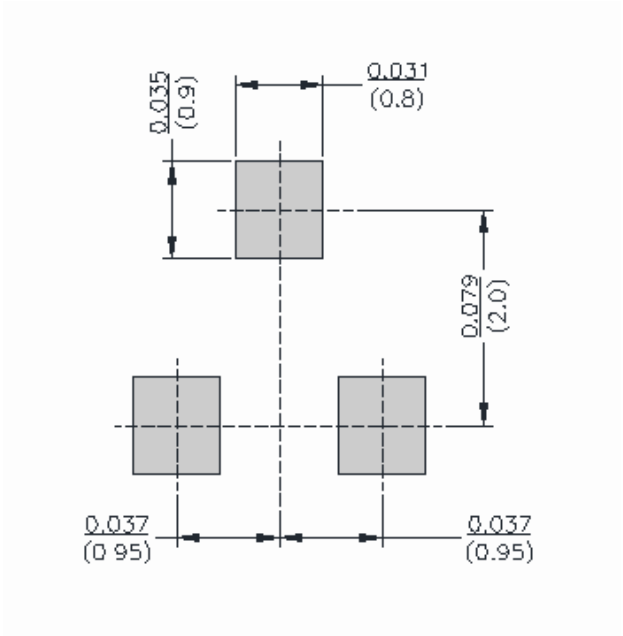

Collector Power Derating Curve
400
300
200
100
0
Collector Power Dissipation Pc(mW)
0
50
100
150
Ambient Tempeature Ta(℃)

■



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	0.080	0.200	0.003	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			
e1	1.800	2.000	0.071	0.079
L	0.550REF			
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

■



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