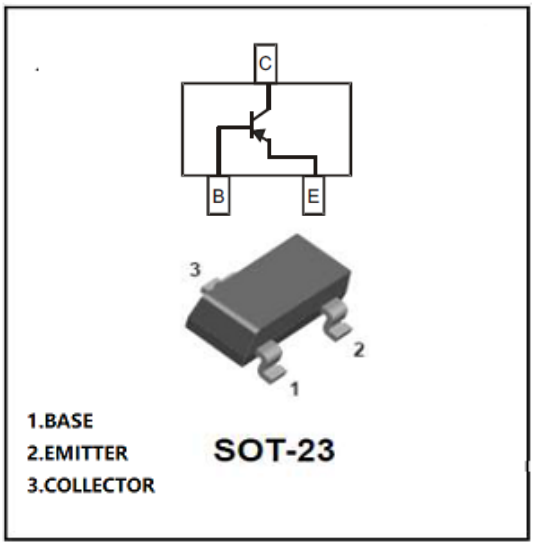
MMBTA55 THRU MMBTA56

RoHS COMPLIANT

PNP General Purpose Amplifier



Features

- ●Epoxy meets UL-94 V-0 flammability rating
- ●Moisture Sensitivity Level 1
- ●High Conductance
- ●Surface Mount Package Ideally Suited for Automatic Insertion

Mechanical Data

- **Package**: SOT-23
  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: MMBTA55=2H, MMBTA56=2GM

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

Item	Symbol	Rating	Unit
Collector-Base Voltage	VCBO MMBTA55 MMBTA56	 -60 -80	V
Collector-Emitter Voltage	VCEO MMBTA55 MMBTA56	 -60 -80	V
Emitter-Base Voltage	VEBO	-4	V
Collector Current -Continuous	IC	-500	mA
Total Device Dissipation	PC	225	mW
Junction Temperature	Tj	-55 to +150	℃
Storage Temperature	TSTG	-55 to +150	℃

■Electrical Characteristics（Ta=25℃ Unless otherwise specified）

Item	Symbol	Unit	Conditions	Min	Max
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	V	IC =-1mA,IB=0 MMBTA55 MMBTA56	 -60 -80	
Emitter-base breakdown voltage	$V_{(BR)EBO}$	V	IE=-100μA,IC=0	-4	
Collector cut-off current	I_{CBO}	μA	VCB=-60V,IE=0, MMBTA55 VCB=-80V,IE=0, MMBTA56		0.1 0.1
Collector cut-off current	I_{CES}	μA	VCE=-60V, IB=0V,		0.1
DC current gain	h_{FE}		VCE=-1V,IC=-10mA	100	
	h_{FE}		VCE=-1V,IC=-100mA	100	
Collector-emitter saturation voltage	$V_{CE(sat)}$	V	IC=-100mA,IB=-10mA		0.25
Base-emitter saturation voltage	$V_{BE(sat)*}$	V	IC=-100mA, VCE=-1V		1.2

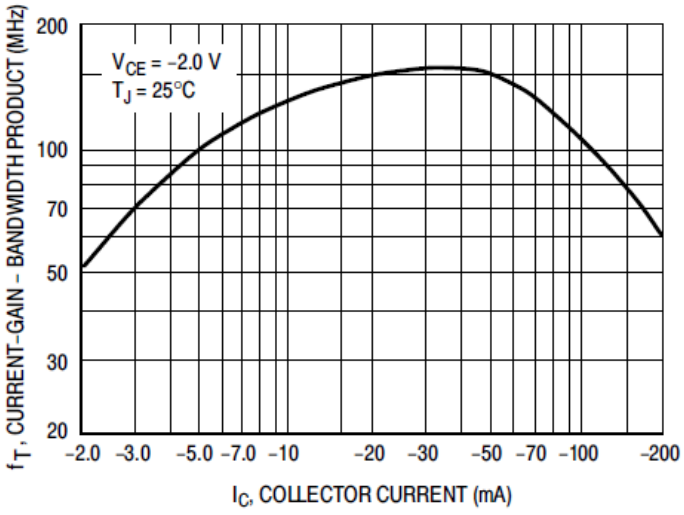
■Other Characteristics（T_a=25℃ Unless otherwise specified）

Item	Symbol	Unit	Conditions	Min	Max
Transition frequency	fT	MHz	VCE=-20V,IC=-10mA,f=100MHz	250	

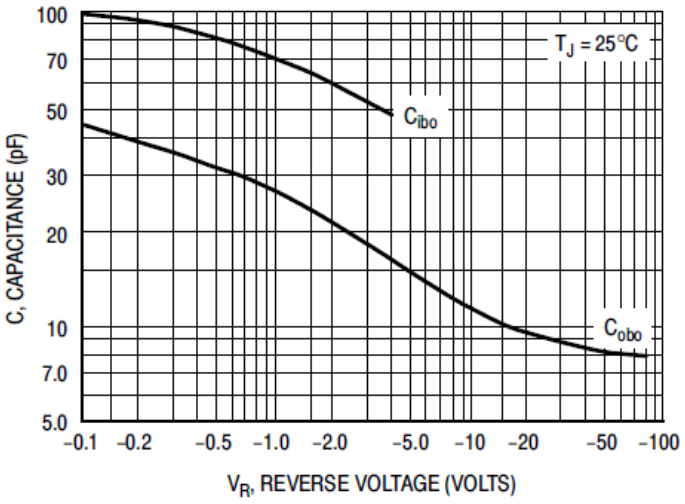
■Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MMBTA55 MMBTA56	F2	Approximate 0.009	3000	30000	120000	7” reel

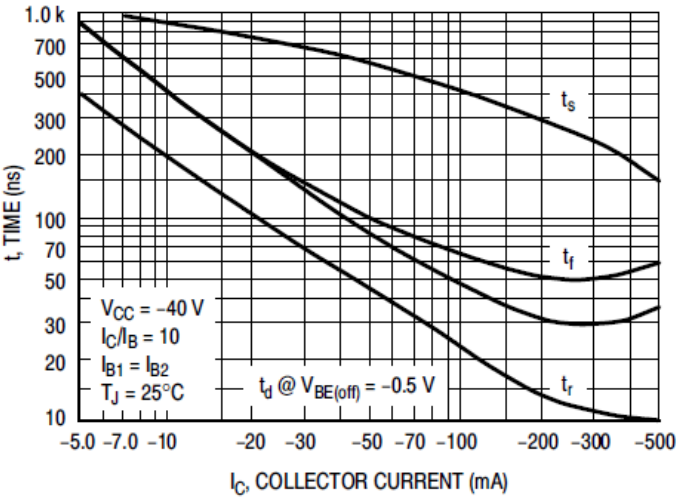
■Characteristics(Typical)



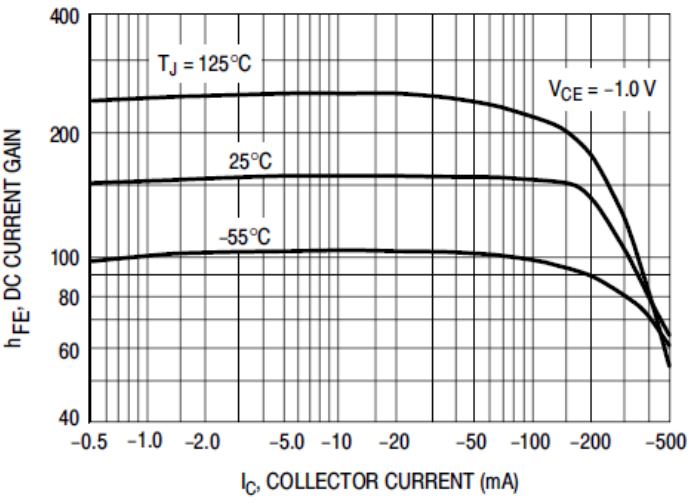
Current–Gain — Bandwidth Product



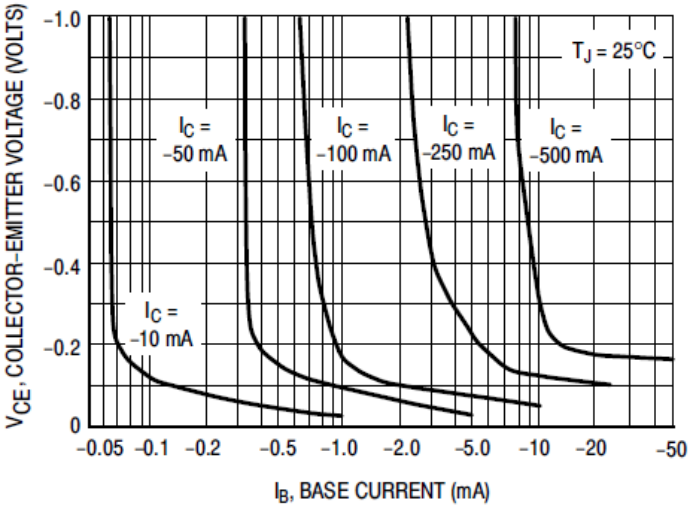
Capacitance



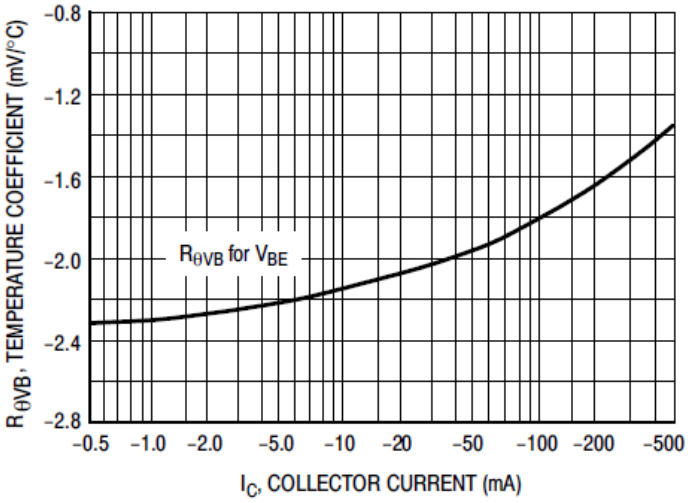
Switching Time



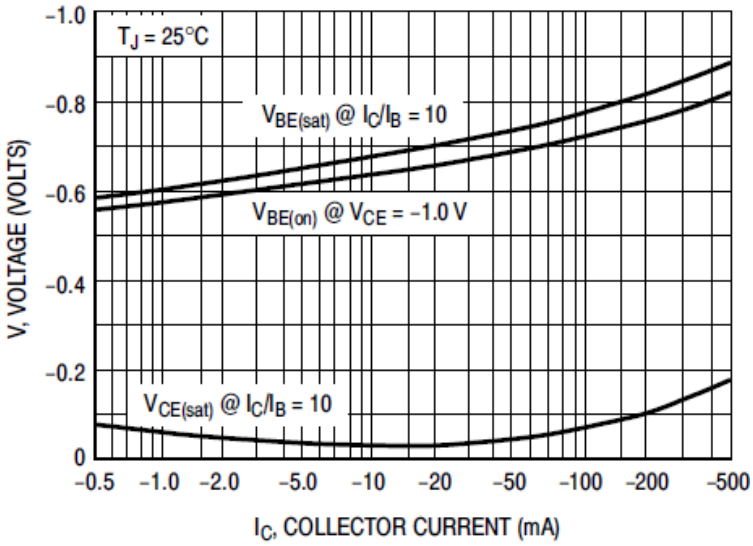
DC Current Gain



Collector Saturation Region

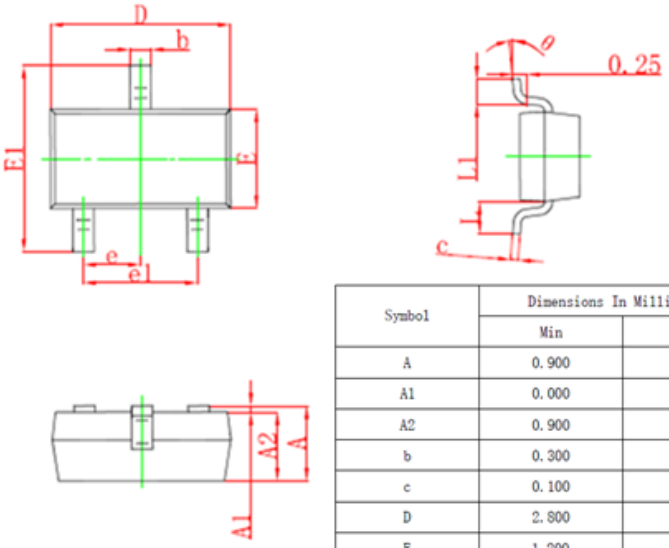


Base–Emitter Temperature Coefficient



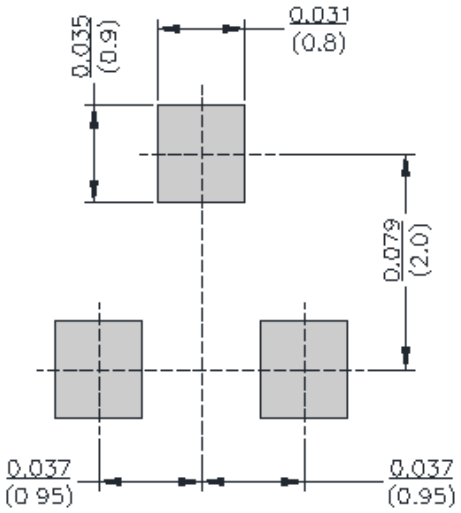
"ON" Voltages

■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
θ	0°	8°	0°	8°

■SOT-23Suggested Pad Layout



Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of with would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website http:// www.21yangjie.com , or consult your nearest Yangjie's sales office for further assistance.