

Features

- Complementary to MMBTA44
- Power dissipation of 350mW
- High stability and high reliability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

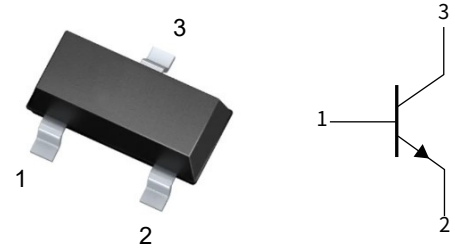


Function Diagram

Collector-Base Voltage
VCBO 400V
Collector Current
0.2 Ampere

Mechanical Data

- Case: SOT-23
- Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026



Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
MMBTA44	SOT-23	MMBTA44	3000

Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	UNIT	VALUE
Collector-Base Voltage	V _{CB0}	V	400
Collector-Emitter Voltage	V _{CE0}		400
Emitter-Base Voltage	V _{EB0}		6.0
Collector Current	I _C	A	0.2
Collector Power Dissipation	P _C	mW	350
Storage temperature	T _{stg}	°C	-55 ~ +150
Junction temperature	T _j	°C	-55 ~ +150
Typical Thermal Resistance	R _{θJA}	°C /W	357

Electrical Characteristics (T_A=25°C Unless otherwise noted)

PARAMETER	SYMBOL	UNIT	Condition	Min	Max
Collector-Base Breakdown Voltage	V _{(BR)CBO}	V	I _C =100μA, I _E =0	400	—
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}		I _C =1.0mA, I _B =0	400	—
Emitter-Base Breakdown Voltage	V _{(BR)EBO}		I _E =100μA, I _C =0	6.0	—
Collector-Base cut-off current	I _{CB0}	nA	V _{CB} =400V, I _E =0	—	100
Emitter-Base cut-off current	I _{EBO}		V _{EB} =4.0V, I _C =0	—	100
DC Current Gain	h _{FE(1)}	—	I _C =1.0mA V _{CE} =10V	50	—
	h _{FE(2)}		I _C =10mA V _{CE} =10V	80	300
	h _{FE(3)}		I _C =50mA V _{CE} =10V	40	—
	h _{FE(4)}		I _C =100mA V _{CE} =10V	40	—
Collector-Emitter Saturation Voltage	V _{CE(sat)}	V	I _C =10mA I _B =1.0mA	—	0.2
Base-Emitter Saturation Voltage	V _{BE(sat)}	V	I _C =10mA I _B =1.0mA	—	0.75

Classification Of h_{FE}

RANK	MMBTA44	MMBTA44-L
Range	80-300	100-200

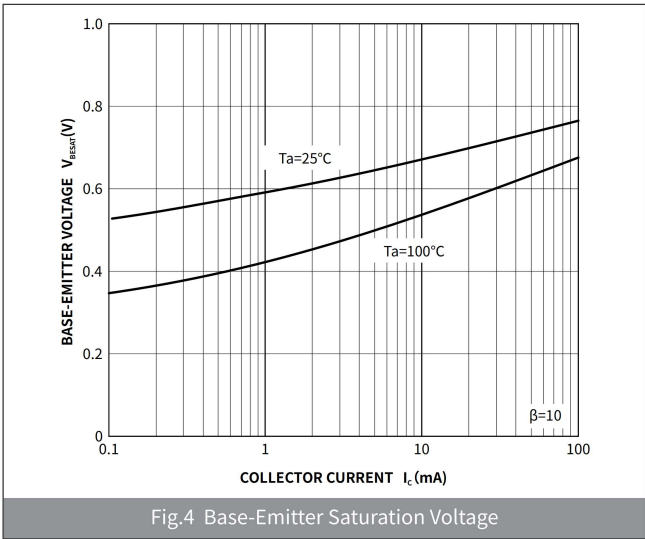
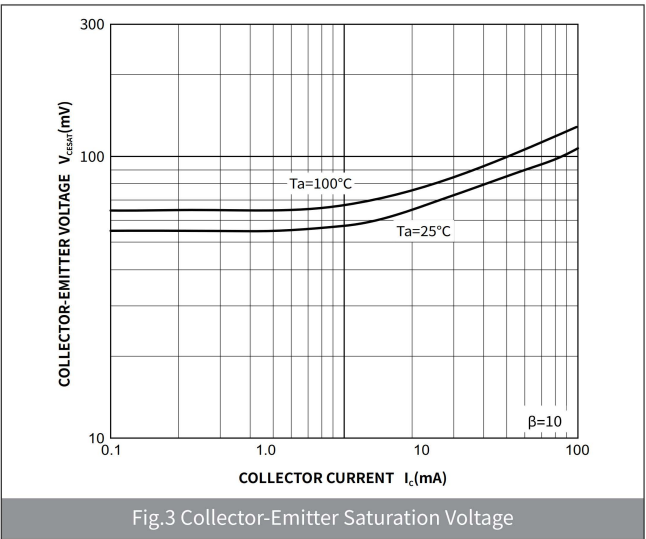
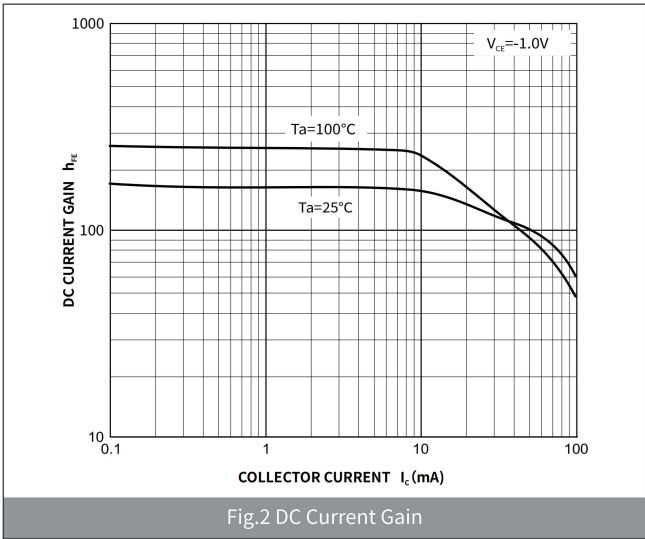
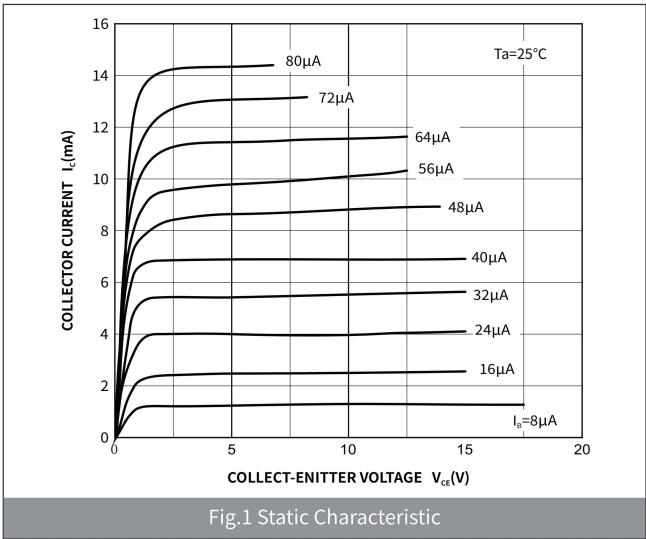
Small-signal Characteristics

ITEM	SYMBOL	Condition	UNIT	Min	Max
Transition frequency	f_T	$I_C=10mA, V_{CE}=20V, f=30MHz$	MHz	50	—

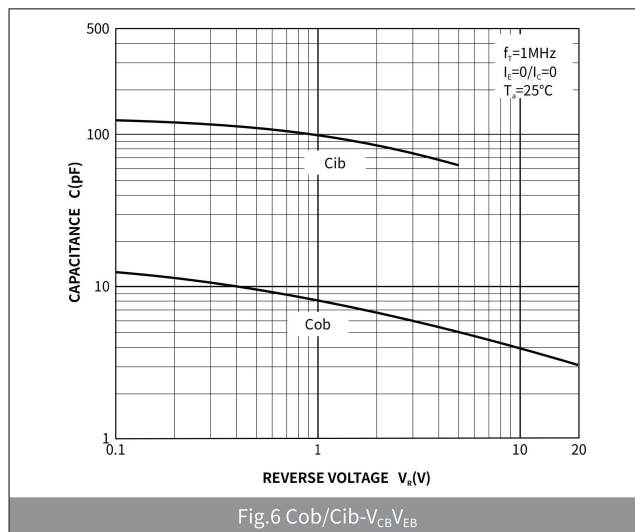
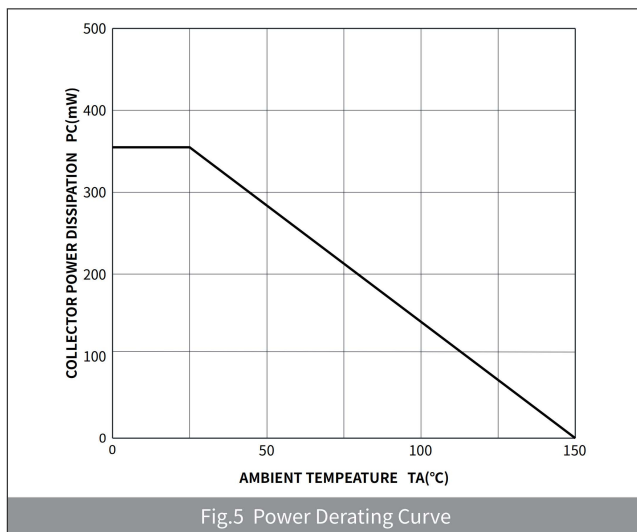
Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SOT-23	R1	0.008	3000	45000	180000	7"

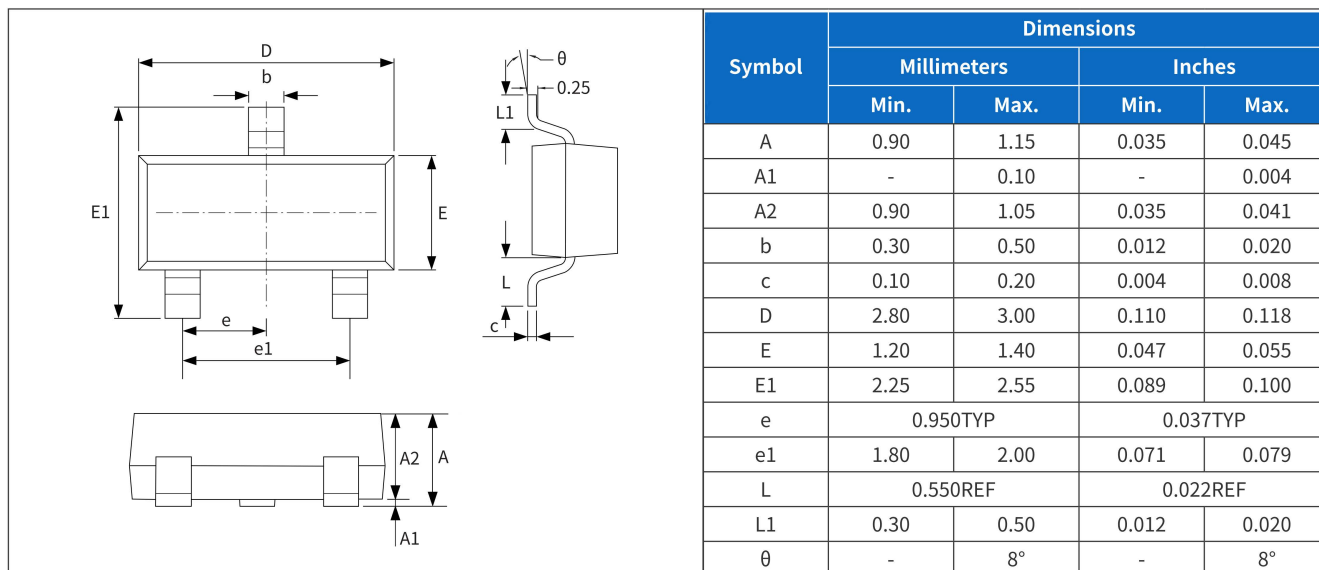
Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)



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Package Outline Dimensions (SOT-23)



Suggested Pad Layout

