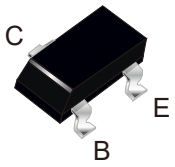
NPN Plastic-Encapsulate Transistors

FEATURES

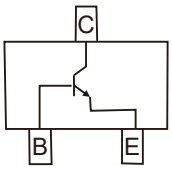
- Epoxy meets UL-94 V-0 flammability rating
- Complementary to MMBTA94
- Power Dissipation of 350mW
- High Stability and High Reliability

SOT-23



MECHANICAL DATA

- Case:SOT-23(TO-236)
- Terminals:Plated solderable per MIL-STD-750,method 2026
- Mounting Position: Any
- Marking:3D



MAXIMUM RATINGS(T_A=25°C Unless otherwise specified)

Parameter	Symbol	Unit	Value
Collector-Emitter Voltage	V_{CEO}	V	400
Collector-Base Voltage	V_{CBO}	V	400
Emitter-Base Voltage	V_{EBO}	V	6
Collector Current, Continuous	I_C	mA	200
Collector Power Dissipation	P_D	mW	350
Operation Junction Temperature	T_J	℃	-55 to +150
Storage Temperature	T_{STG}	℃	-55 to +150
Thermal resistance From junction to ambient	$R_{\theta JA}$	℃/W	357

ELECTRICAL CHARACTERISTICS(T_A=25°C Unless otherwise specified)

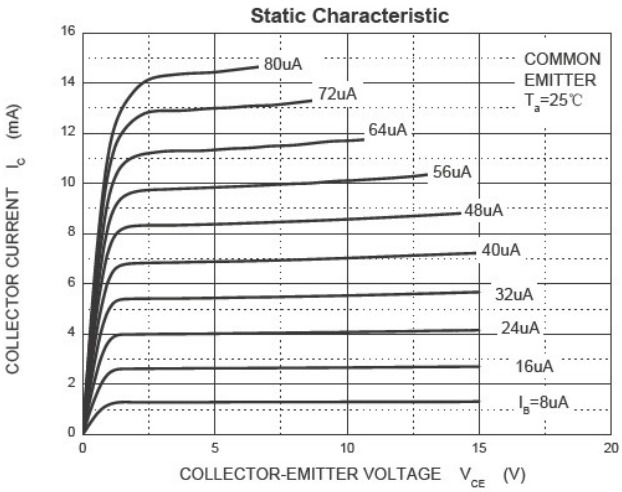
Parameter	Symbol	Unit	Conditions	Min	Max
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	V	I_C=1mA,I_B=0	400	---
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	V	I_C=100μA,I_E=0	400	---
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	V	I_E=10μA,I_C=0	6	---
Collector cut-off Current	I_{CBO}	nA	V_{CB}=400V,I_E=0	---	100
Emitter cut-off Current	I_{EBO}	nA	V_{EB}=4V,I_C=0	---	100
DC Current Gain	$h_{FE(1)}$		I_C=1mA,V_{CE}=10V	40	---
	$h_{FE(2)}$		I_C=10mA,V_{CE}=10V	50	200
	$h_{FE(3)}$		I_C=50mA,V_{CE}=10V	45	---
	$h_{FE(4)}$		I_C=100mA,V_{CE}=10V	40	---
Collector-Emitter Saturation Voltage	VCE(sat)	V	I_C=1mA,I_B=0.1mA	---	0.40
			I_C=10mA,I_B=1mA	---	0.50
			I_C=50mA,I_B=5mA	---	0.75
Base-Emitter Saturation Voltage	VBE(sat)	V	I_C=10mA,I_B=1mA	---	0.75
Output Capacitance	Cob	pF	V_{CB}=20V,f=1.0MHz,I_E=0	---	7
Emitter Input Capacitance	Cib	pF	V_{EB}=0.5V,f=1.0MHz,I_C=0	---	130

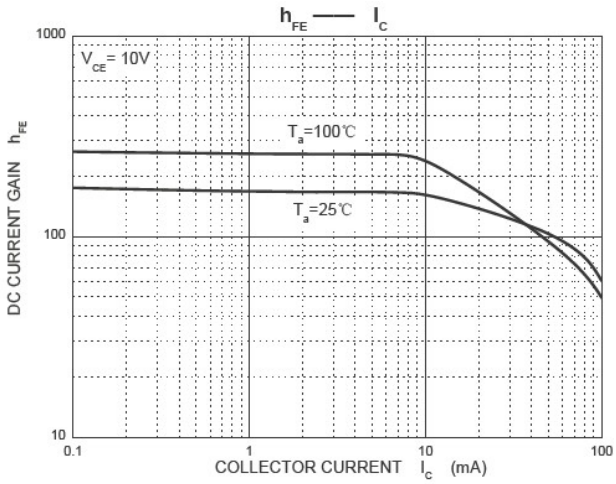
Pulse test:pulse width≤300us,duty cycle≤2.0%

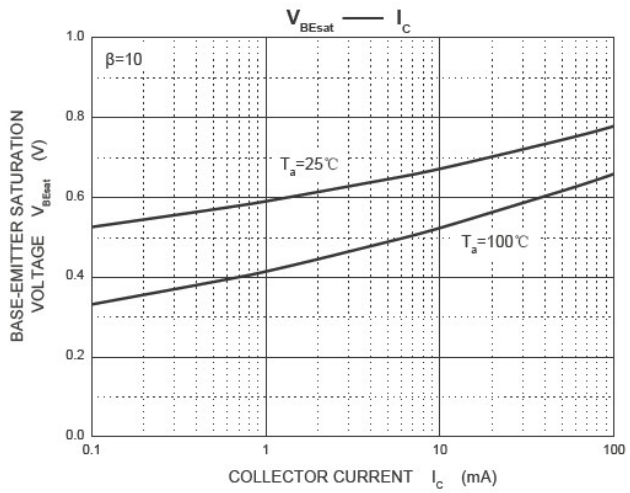
AVAILABALE PACK INFORMATION

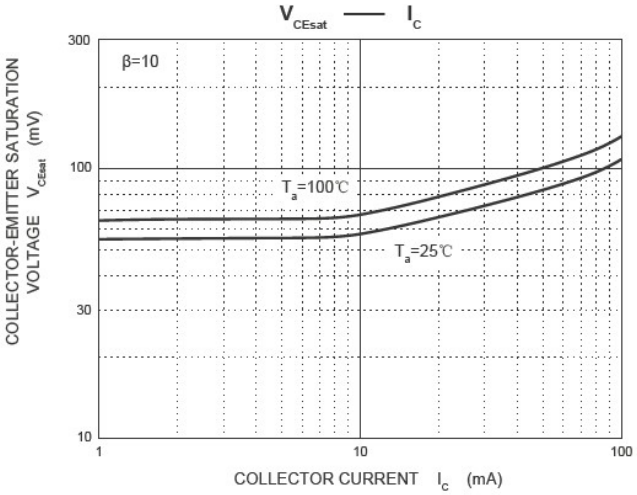
Product code	Pack	Reel Size (mm)	Quantity (Pcs/reel)	Quantity (pcs/box)	Quantity (pcs/carton)
MMBTA44	T/R	Φ180	3K	30K	120K

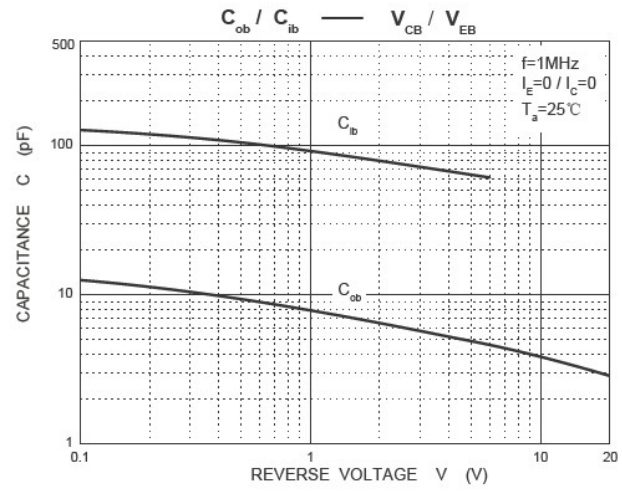
Characteristics(Typical)

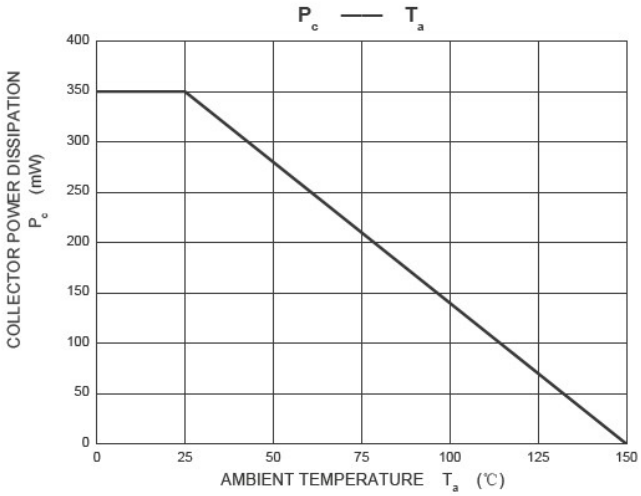






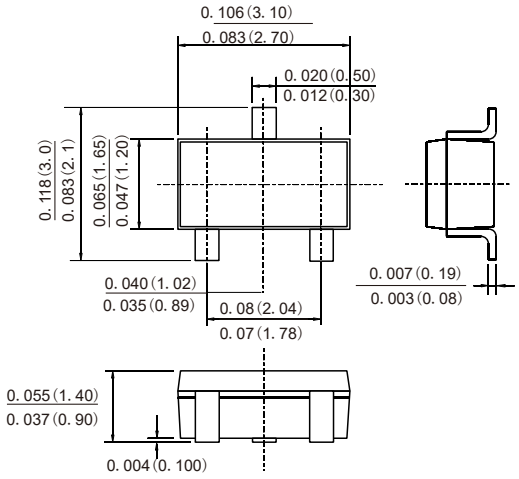






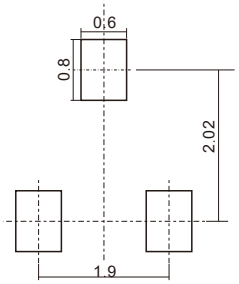
Outline Dimensions

SOT-23



Dimensions in inches and (millimetrers)

Suggested pad layout



Dimensions in millimetrers