

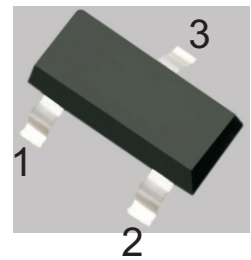


AT-MMBT2222A  
NPN TRANSISTOR

FEATURES

- Epitaxial planar die construction
- Complementary PNP Type available(MMBT2907A)
- Qualified to AEC-Q101 Standards for High Reliability

SOT-23



- 1.BASE  
2.EMITTER  
3.COLLECTOR



MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

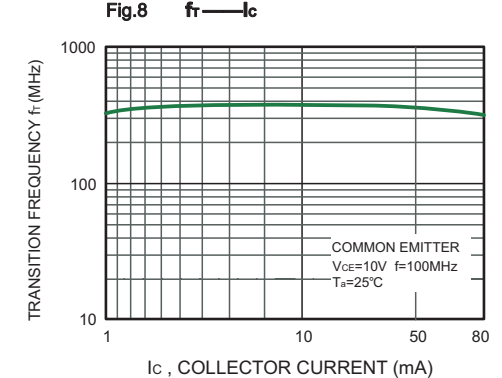
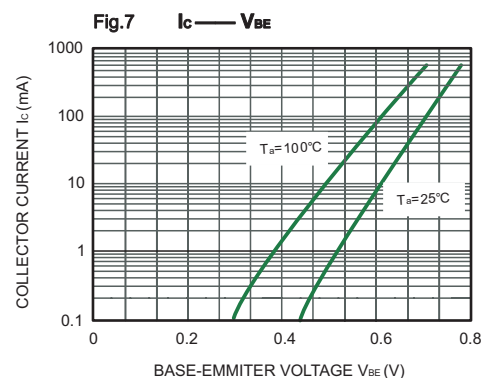
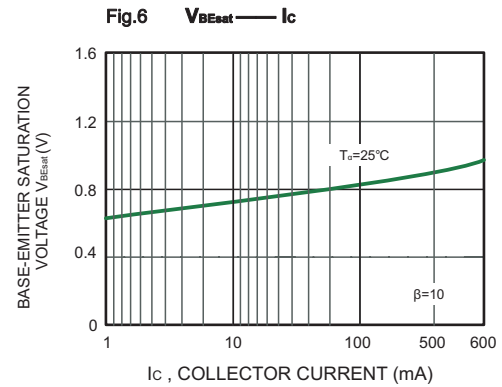
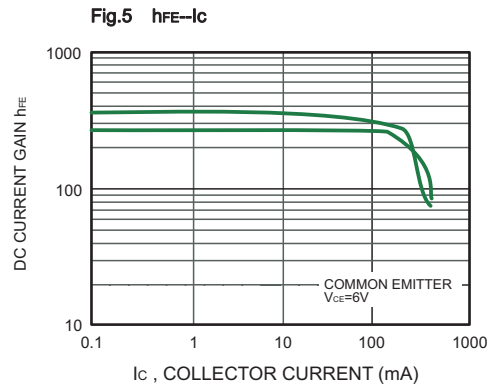
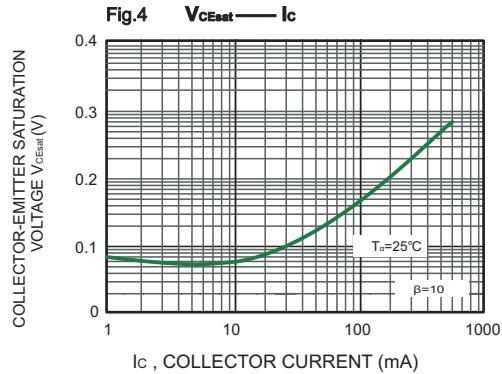
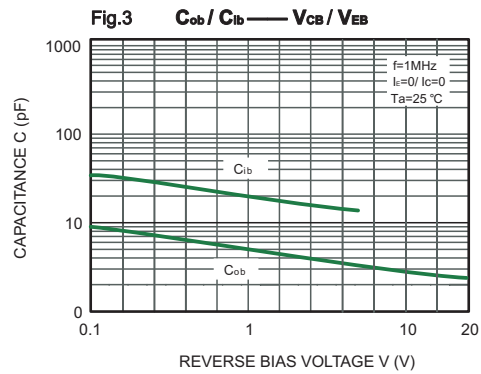
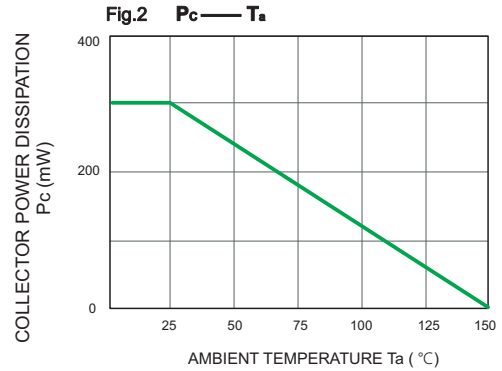
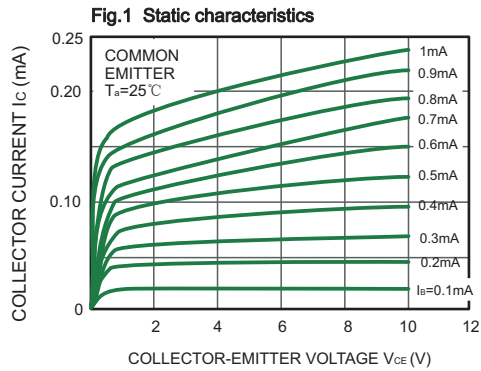
Parameter	Symbol	Value	Unit
Collector-Base Voltage	$V_{CB0}$	75	V
Collector-Emitter Voltage	$V_{CE0}$	40	V
Emitter-Base Voltage	$V_{EB0}$	6	V
Collector Current — Continuous	$I_C$	600	mA
Collector Power Dissipation	$P_C$	300	mW
Thermal Resistance From Junction To Ambient	$R_{thJA}$	417	°C/W
Operation Junction and Storage Temperature Range	$T_J, T_{stg}$	-65~+150	°C

ELECTRICAL CHARACTERISTICS (TA = 25°C unless otherwise noted.)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 10\mu A, I_E = 0$	75			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 10\text{ mA}, I_B = 0$	40			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 10\mu A, I_C = 0$	6			V
Collector cut-off current	$I_{CBO}$	$V_{CB} = 60V, I_E = 0$			0.01	$\mu A$
Collector cut-off current	$I_{CEX}$	$V_{CE} = 30V, V_{BE(off)} = 3V$			0.01	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 3V, I_C = 0$			0.1	$\mu A$
DC current gain	$h_{FE1}$	$V_{CE} = 10V, I_C = 150mA$	100		300	
	$h_{FE2}$	$V_{CE} = 10V, I_C = 0.1mA$	40			
	$h_{FE3}$	$V_{CE} = 10V, I_C = 500mA$	42			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500mA, I_B = 50mA$			1.0 0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 150mA, I_B = 15mA$			2.0 1.2	V
Transition frequency	$f_T$	$V_{CE} = 20V, I_C = 20mA, f = 100MHz$	300			MHz

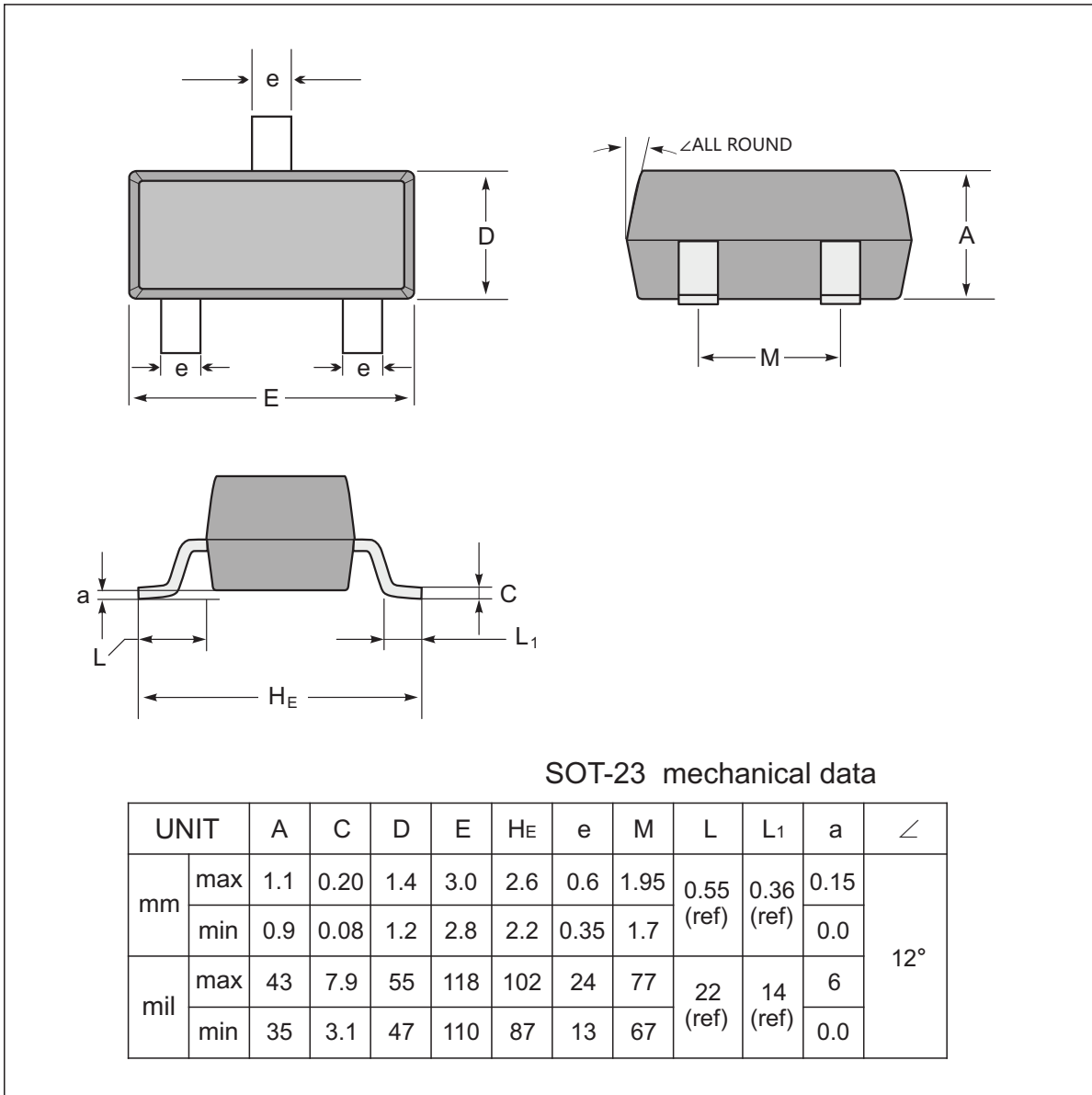


### TYPICAL CHARACTERISTICS

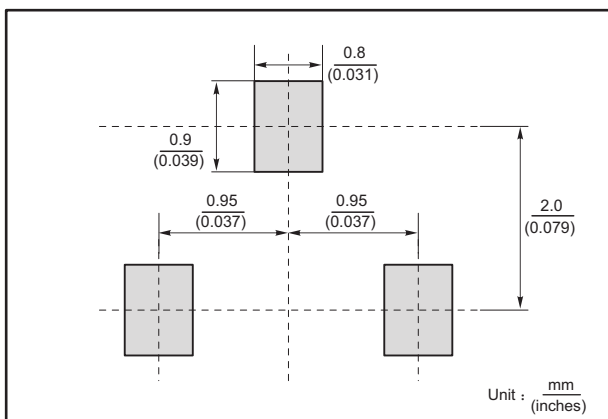




SOT-23 Package Outline Dimensions



The recommended mounting pad size



Marking

Type number	Marking code
AT-MMBT2222A	1P