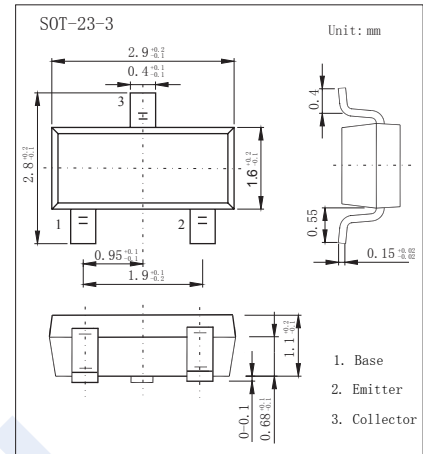


## NPN Transistors

### MMBTA06 (KMBTA06)

#### ■ Features

- For Switching and Amplifier Applications
- Complementary to MMBTA56



#### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CB0}$	80	V
Collector - Emitter Voltage	$V_{CE0}$	80	
Emitter - Base Voltage	$V_{EB0}$	4	
Collector Current - Continuous	$I_C$	500	mA
Collector Power Dissipation	$P_C$	300	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	416	$^\circ\text{C}/\text{W}$
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to 150	

#### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	$V_{CB0}$	$I_C = 100 \mu\text{A}$ , $I_E = 0$	80			V
Collector- emitter breakdown voltage	$V_{CE0}$	$I_C = 1 \text{ mA}$ , $I_B = 0$	80			
Emitter - base breakdown voltage	$V_{EB0}$	$I_E = 100 \mu\text{A}$ , $I_C = 0$	4			
Collector-base cut-off current	$I_{CB0}$	$V_{CB} = 80 \text{ V}$ , $I_E = 0$			100	nA
Collector- emitter cut-off current	$I_{CES}$	$V_{CE} = 60 \text{ V}$ , $I_E = 0$			100	
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 3 \text{ V}$ , $I_C = 0$			100	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100 \text{ mA}$ , $I_B = 10 \text{ mA}$			0.25	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 100 \text{ mA}$ , $I_B = 10 \text{ mA}$			1.2	
DC current gain	$h_{FE(1)}$	$V_{CE} = 1 \text{ V}$ , $I_C = 10 \text{ mA}$	100		400	
	$h_{FE(2)}$	$V_{CE} = 1 \text{ V}$ , $I_C = 100 \text{ mA}$	100			
Transition frequency	$f_T$	$V_{CE} = 2 \text{ V}$ , $I_C = 10 \text{ mA}$ , $f = 100 \text{ MHz}$	100			MHz

#### ■ Marking

Marking	1G*

# NPN Transistors

## MMBTA06 (KMBTA06)

■ Typical Characteristics

