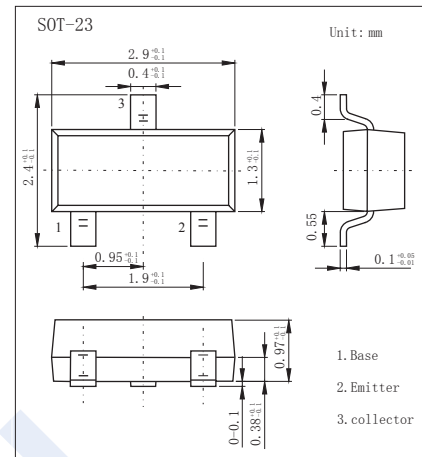


NPN Transistors

MMBTA05 (KMBTA05)

■ Features

- Collector Current Capability $I_C=0.5A$
- Collector Emitter Voltage $V_{CE0}=60V$
- Driver transistor



■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	60	V
Collector - Emitter Voltage	V_{CEO}	60	
Emitter - Base Voltage	V_{EBO}	4	
Collector Current - Continuous	I_C	0.5	A
Collector Power Dissipation	P_C	300	mW
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55 to 150	

■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	$I_C = 100 \mu A, I_E = 0$	60			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = 1 mA, I_B = 0$	60			
Emitter - base breakdown voltage	V_{EBO}	$I_E = 100 \mu A, I_C = 0$	4			
Collector-base cut-off current	I_{CBO}	$V_{CB} = 60 V, I_E = 0$			100	nA
Collector- emitter cut-off current	I_{CEO}	$V_{CE} = 60 V, I_E = 0$			1000	
Emitter cut-off current	I_{EBO}	$V_{EB} = 4 V, I_C = 0$			100	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100 mA, I_B = 10 mA$			0.25	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 100 mA, I_B = 10 mA$			1.2	
Base-emitter voltage	V_{BE}	$V_{CE} = 1 V, I_C = 100 mA$			1.2	
DC current gain	$h_{FE(1)}$	$V_{CE} = 1 V, I_C = 10 mA$	100		400	
	$h_{FE(2)}$	$V_{CE} = 1 V, I_C = 100 mA$	100			
Transition frequency	f_T	$V_{CE} = 2 V, I_C = 10 mA, f = 100 MHz$	100			MHz

■ Marking

Marking	1H
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MMBTA05 (KMBTA05)

■ Typical Characteristics

