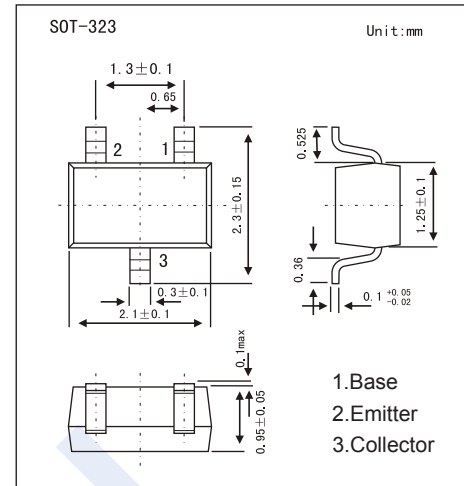


NPN Transistors

MMSTA42 (KMSTA42)

■ Features

- High Breakdown Voltage
- Low Collector-Emitter Saturation Voltage
- Complementary to MMSTA92



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V _{CBO}	300	V
Collector - Emitter Voltage	V _{CEO}	300	
Emitter - Base Voltage	V _{EBO}	5	
Collector Current - Continuous	I _C	200	mA
Collector Current - Pulse	I _{CP}	500	
Collector Power Dissipation	P _C	300	mW
Thermal Resistance From Junction To Ambient	R _{θJA}	417	°C/W
Junction Temperature	T _J	150	°C
Storage Temperature Range	T _{stg}	-55 to 150	

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V _{CBO}	I _C = 100 μA, I _E = 0	300			V
Collector- emitter breakdown voltage	V _{CEO}	I _C = 1 mA, I _B = 0	300			
Emitter - base breakdown voltage	V _{EBO}	I _E = 100 μA, I _C = 0	5			
Collector-base cut-off current	I _{CBO}	V _{CB} = 200 V, I _E = 0			0.25	μA
Emitter cut-off current	I _{EBO}	V _{EB} = 5V, I _C =0			0.1	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =20 mA, I _B =2mA			0.2	V
Base - emitter saturation voltage	V _{BE(sat)}	I _C =20 mA, I _B =2mA			0.9	
DC current gain	h _{FE(1)}	V _{CE} = 10V, I _C = 1mA	60			
	h _{FE(2)}	V _{CE} = 10V, I _C = 10mA	100		200	
	h _{FE(3)}	V _{CE} = 10V, I _C = 30mA	75			
Transition frequency	f _T	V _{CE} = 20V, I _C = 10mA, f=30MHz	50			MHz

■ Marking

Marking	K3M
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MMSTA42 (KMSTA42)

Typical Characteristics

