



SOT-323 Plastic-Encapsulated Transistors

MMSTA42 TRANSISTOR (NPN)

FEATURES

Power dissipation

P_{CM} : 0.2 W (Tamb=25°C)

Collector current

I_{CM} : 0.3 A

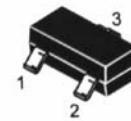
Collector-base voltage

$V_{(BR)CBO}$: 310 V

Operating and storage junction temperature range

T_J, T_{stg} : -55°C to +150°C

SOT-323



1. BASE
2. Emitter
3. Collector

Unit: mm

ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100\mu A, I_E = 0$	310		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1 \text{ mA}, I_B = 0$	305		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 100\mu A, I_C = 0$	5		V
Collector cut-off current	I_{CBO}	$V_{CB} = 200V, I_E = 0$		0.25	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5V, I_C = 0$		0.1	μA
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		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 20 \text{ mA}, I_B = 2mA$		0.2	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 20 \text{ mA}, I_B = 2mA$		0.9	V
Transition frequency	f_T	$V_{CE} = 20V, I_C = 10mA$ $f = 30MHz$	50		MHz

DEVICE MARKING

MMSTA42-K3M