

SOT-323 Plastic-Encapsulated Transistors

MMST5401 TRANSISTOR (PNP)

FEATURES

Power dissipation

$$P_{CM}: 0.2 \text{ W (Tamb=25}^{\circ}\text{C)}$$

Collector current

$$I_{CM}: -0.2 \text{ A}$$

Collector-base voltage

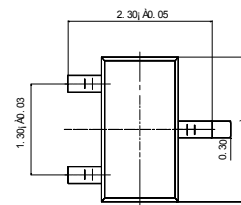
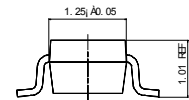
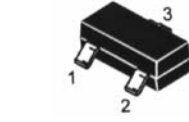
$$V_{(BR)CBO}: -160 \text{ V}$$

Operating and storage junction temperature range

$$T_J, T_{stg}: -55^{\circ}\text{C to } +150^{\circ}\text{C}$$

SOT-323

1. BASE
2. EMITTER
3. COLLECTOR



Unit: mm

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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu\text{A}, I_E = 0$	-160			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, I_B = 0$	-150			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu\text{A}, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -120\text{V}, I_E = 0$			-50	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = -3\text{V}, I_C = 0$			-50	nA
DC current gain	$h_{FE(1)}$	$V_{CE} = -5\text{V}, I_C = -1\text{mA}$	50			
	$h_{FE(2)}$	$V_{CE} = -5\text{V}, I_C = -10\text{mA}$	60		240	
	$h_{FE(3)}$	$V_{CE} = -5\text{V}, I_C = -50\text{mA}$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -10\text{mA}, I_B = -1\text{mA}$			-0.2	V
	$V_{CE(sat)}$	$I_C = -50\text{mA}, I_B = -5\text{mA}$			-0.5	V
Base-emitter voltage	$V_{BE(sat)}$	$I_C = -10\text{mA}, I_B = -1\text{mA}$			-1	V
	$V_{BE(sat)}$	$I_C = -50\text{mA}, I_B = -5\text{mA}$			-1	V
Transition frequency	f_T	$V_{CE} = -10\text{V}, I_C = -10\text{mA}, f = 100\text{MHz}$	100		300	MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$			6	pF
Noise figure	NF	$V_{CE} = -5\text{V}, I_C = -0.2\text{mA}, f = 1\text{KHz}, R_g = 10\Omega$			8	dB

Marking	K4M
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