



SOT-23 Plastic-Encapsulate Transistors

2SA1235A TRANSISTOR (PNP)

FEATURES

Power dissipation

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

Collector current

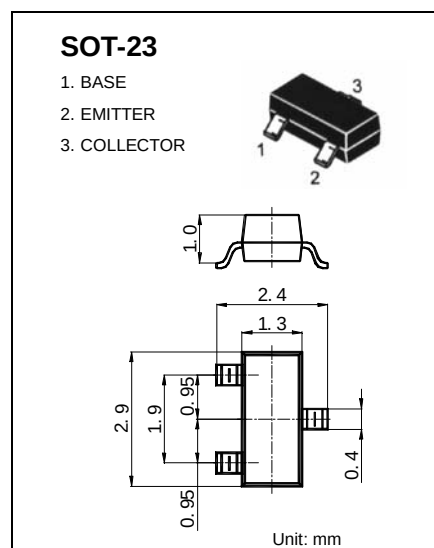
$$I_{CM} : -0.2 \text{ A}$$

Collector-base voltage

$$V_{(BR)CBO} : -60 \text{ V}$$

Operating and storage junction temperature range

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



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

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100 \mu A, I_E = 0$	-60		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -100 \mu A, I_B = 0$	-50		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100 \mu A, I_C = 0$	-6		V
Collector cut-off current	I_{CBO}	$V_{CB} = -60 \text{ V}, I_E = 0$		-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -6 \text{ V}, I_C = 0$		-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = -6 \text{ V}, I_C = -1 \text{ mA}$	150	500	
	$h_{FE(2)}$	$V_{CE} = -6 \text{ V}, I_C = -0.1 \text{ mA}$	90		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100 \text{ mA}, I_B = -10 \text{ mA}$		-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -100 \text{ mA}, I_B = -10 \text{ mA}$		-1	V
Transition frequency	f_T	$V_{CE} = -6 \text{ V}, I_C = -10 \text{ mA}$	180		MHz
Collector output capacitance	C_{ob}	$V_{CE} = -6 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		5	dB
Noise figure	NF	$V_{CE} = -6 \text{ V}, I_E = 0.3 \text{ mA}, f = 100 \text{ Hz}, R_G = 10 \text{ K}\Omega$		20	dB

CLASSIFICATION OF $h_{FE(1)}$

Rank	E	F
Range	150~300	250~500
Marking	M • E	M • F