



SOT-23 Plastic-Encapsulate Transistors

2SC3052 TRANSISTOR (NPN)

FEATURES

Power dissipation

P_{CM} : 0.15 W ($T_{amb}=25^{\circ}C$)

Collector current

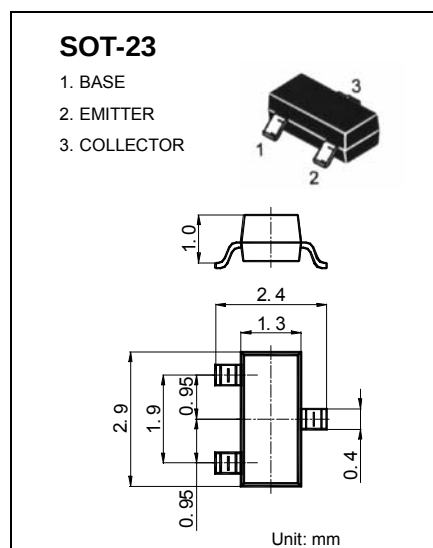
I_{CM} : 0.2 A

Collector-base voltage

$V_{(BR) CBO}$: 50 V

Operating and storage junction temperature range

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



ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR) CBO}$	$I_C = 100 \mu A, I_E = 0$	50		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}	$V_{CB} = 50 V, I_E = 0$		0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 6 V, I_C = 0$		0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = 6 V, I_C = 1 mA$	150	800	
	$h_{FE(2)}$	$V_{CE} = 6 V, I_C = 0.1 mA$	50		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100 mA, I_B = 10 mA$		0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 100 mA, I_B = 10 mA$		1	V
Transition frequency	f_T	$V_{CE} = 6 V, I_C = 10 mA$	180		MHz
Collector output capacitance	C_{ob}	$V_{CE} = 6 V, I_E = 0, f = 1 MHz$		4	pF
Noise figure	NF	$V_{CE} = 6 V, I_E = -0.1 mA, f = 1 KHz, R_G = 2 K\Omega$		15	dB

CLASSIFICATION OF $h_{FE(1)}$

Rank	E	F	G
Range	150~300	250~500	400~800
Marking	LE	LF	LG