



TO-251 Plastic-Encapsulated Transistors

2SA1700 TRANSISTOR (NPN)

FEATURES

Power dissipation

$$P_{CM} : 1 \text{ W (Tamb=25°C)}$$

Collector current

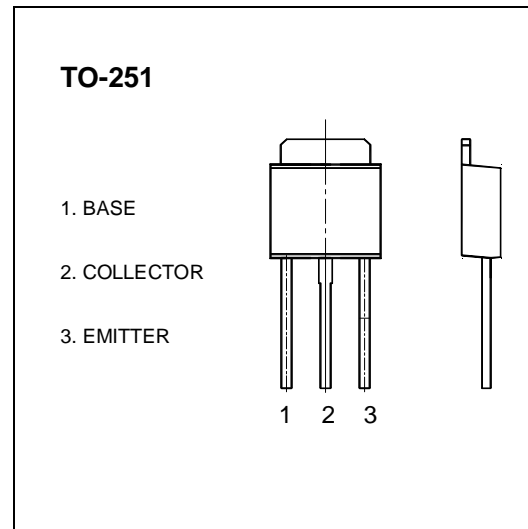
$$I_{CM} : -200 \text{ mA}$$

Collector-base voltage

$$V_{(BR)CBO} : -400 \text{ V}$$

Operating and storage junction temperature range

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



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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10\mu A, I_E = 0$	-400			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1mA, I_B = 0$	-400			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -300V, I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -4V, I_C = 0$			-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = -10V, I_C = -50mA$	60		200	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -50mA, I_B = -5mA$			-0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -50mA, I_B = -5mA$			-1	V
Transition frequency	f_T	$V_{CE} = -30V, I_C = -10mA$		70		MHz

CLASSIFICATION OF $h_{FE(1)}$

Rank	D	E
Range	60-120	100-200