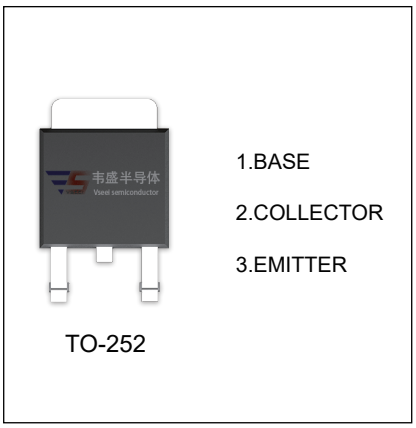
2SA1012B TRANSISTOR (PNP)



FEATURES

- -2A,-50V Middle Power Transistor
- Suitable for Middle Power Driver
- Low Collector-emitter saturation voltage

APPLICATIONS

- Middle Power Driver
- LED Driver
- Power Supply

compound device,

device

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Parameter	Symbol	Limit	Unit
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-50	V
Emitter-Base Voltage	V_{EBO}	-6	V
Collector Current	I_C	-2	A
Collector Power Dissipation	P_C (1)	1.25	W
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	100	℃/W
Operation Junction and Storage Temperature Range	T_J,T_{stg}	-55~+150	℃

(1). Mounted on a substrate

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-50μA,I_E=0	-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-1mA,I_B=0	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-50μA,I_C=0	-6			V
Collector cut-off current	I_{CBO}	V_{CB}=-50V,I_E=0			-0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-5V,I_C=0			-0.1	μA
DC current gain	h_{FE}^*	V_{CE}=-2V, I_C=-0.5A	82		270	
Collector-emitter saturation voltage	$V_{CE(sat)}^*$	I_C=-1A,I_B=-0.05A			-0.35	V
Collector output capacitance	C_{ob}	V_{CB}=-10V,I_E=0, f=1MHz		36		pF
Transition frequency	f_T^*	V_{CE}=-2V,I_C=-0.5A, f=100MHz		200		MHz

Notes:

1. Pulse Test : Pulse Width≤300μs, duty cycle ≤2%.

CLASSIFICATION OF h_{FE}

RANK	P	Q
RANGE	82-180	120-270