

TO-126 Plastic-Encapsulate Transistors

AV882 TRANSISTOR (NPN)

FEATURES

Power dissipation

$$P_{CM} : 1.25 \text{ W (Tamb=25}^\circ\text{C)}$$

Collector current

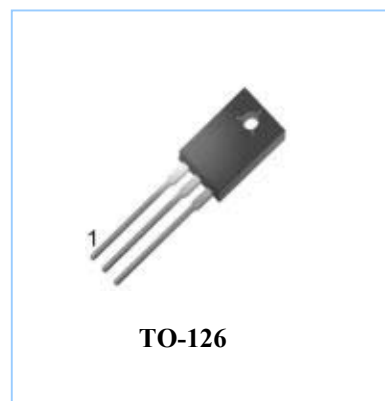
$$I_{CM} : 3 \text{ A}$$

Collector-base voltage

$$V_{(BR)CBO} : 40 \text{ V}$$

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	$V_{(BR)CBO}$	$I_C = 100 \mu\text{A}, I_E = 0$	40		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 10 \text{ mA}, I_B = 0$	30		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 100 \mu\text{A}, I_C = 0$	6		V
Collector cut-off current	I_{CBO}	$V_{CB} = 40 \text{ V}, I_E = 0$		1	μA
Collector cut-off current	I_{CEO}	$V_{CE} = 30 \text{ V}, I_B = 0$		1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 6 \text{ V}, I_C = 0$		1	μA
DC current gain	$H_{FE(1)}$	$V_{CE} = 2 \text{ V}, I_C = 1 \text{ A}$	60	400	
	$H_{FE(2)}$	$V_{CE} = 2 \text{ V}, I_C = 100 \text{ mA}$	32		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 2 \text{ A}, I_B = 0.2 \text{ A}$		0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 2 \text{ A}, I_B = 0.2 \text{ A}$		2	V
Transition frequency	f_T	$V_{CE} = 5 \text{ V}, I_C = 0.1 \text{ A}$ $f = 10 \text{ MHz}$	50		MHz

CLASSIFICATION OF HFE(1)

Rank	R	O	Y	GR
Range	60-120	100-200	160-320	200-400

TYPICAL PERFORMANCE CHARACTERISTICS

Fig.1 Static characteristics

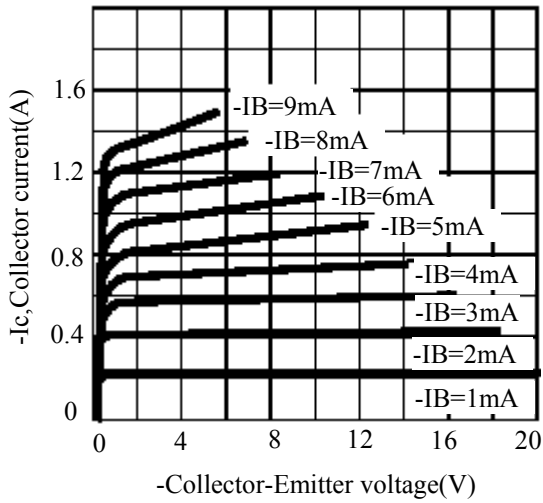


Fig.2 Derating curve of safe operating areas

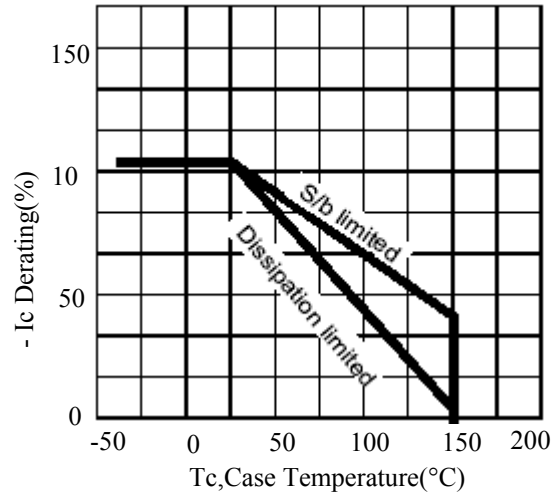


Fig.3 Power Derating

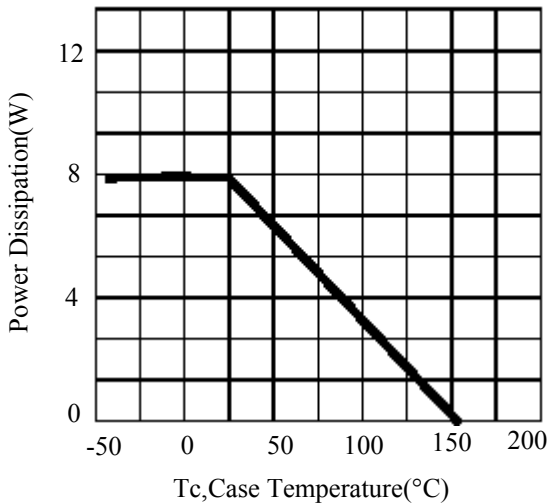


Fig.4 Collector Output capacitance

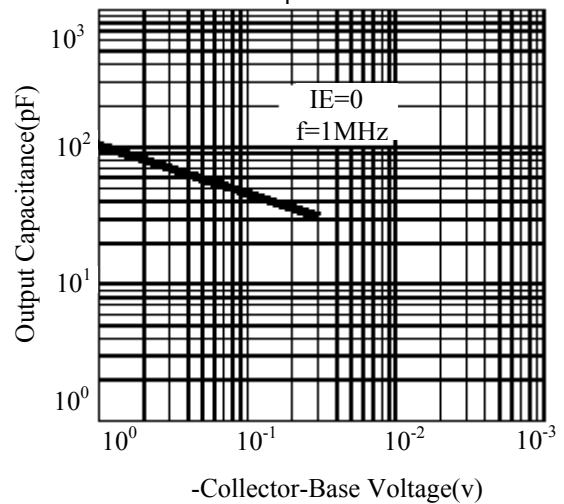


Fig.5 Current gain-bandwidth product

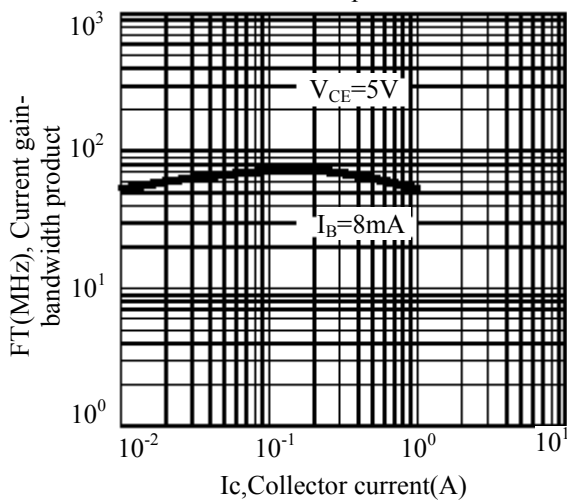


Fig.6 Safe operating area

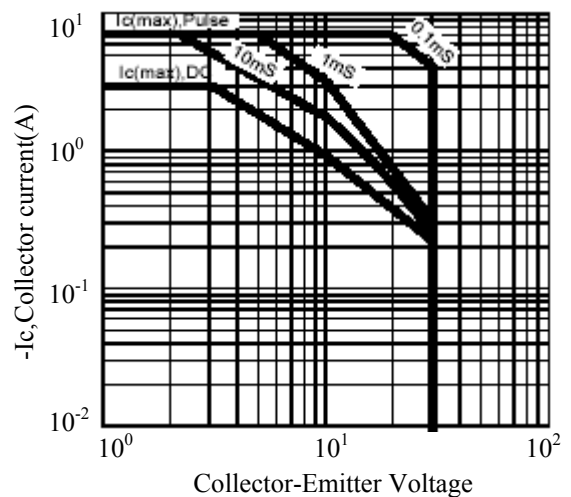


Fig.7 DC current gain

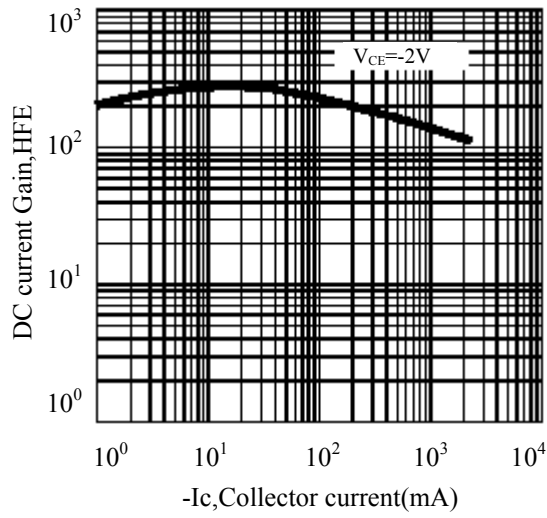


Fig.8 Saturation

