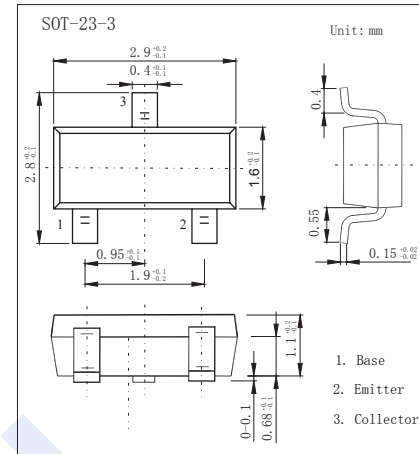


PNP Transistors

2SA1235-HF



Features

- Small collector to emitter saturation voltage.
- Excellent lineary DC forward current gain.
- Super mini package for easy mounting.
- Pb-Free Package May be Available. The G-Suffix Denotes a Pb-Free Lead Finish

Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	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	-200	mA
Collector dissipation ($T_a=25^\circ\text{C}$)	P_C	200	mW
Jumction temperature	T_j	125	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +125	$^\circ\text{C}$

Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	$I_C = -100 \mu\text{A}, I_E = 0$	-50			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = -1 \text{ mA}, I_B = 0$	-50			
Emitter - base breakdown voltage	V_{EBO}	$I_E = -100 \mu\text{A}, I_C = 0$	-6			uA
Collector-base cut-off current	I_{CBO}	$V_{CB} = -50 \text{ V}, I_E = 0$			-0.1	
Emitter cut-off current	I_{EBO}	$V_{EB} = -6 \text{ V}, I_C = 0$			-0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100 \text{ mA}, I_B = -10 \text{ mA}$			-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -100 \text{ mA}, I_B = -10 \text{ mA}$			-1.2	
DC forward current gain	h_{FE}	$V_{CE} = -6 \text{ V}, I_C = -1 \text{ mA}$	150		800	
		$V_{CE} = -6 \text{ V}, I_C = -0.1 \text{ mA}$	90			
Noise figure	NF	$V_{CB} = -6 \text{ V}, I_E = 0.3 \text{ mA}, f = 100 \text{ Hz}, R_G = 10 \text{ k}\Omega$			20	dB
Collector output capacitance	C_{ob}	$V_{CB} = -6 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		4		pF
Transition frequency	f_T	$V_{CE} = -6 \text{ V}, I_E = -10 \text{ mA}$		200		MHz

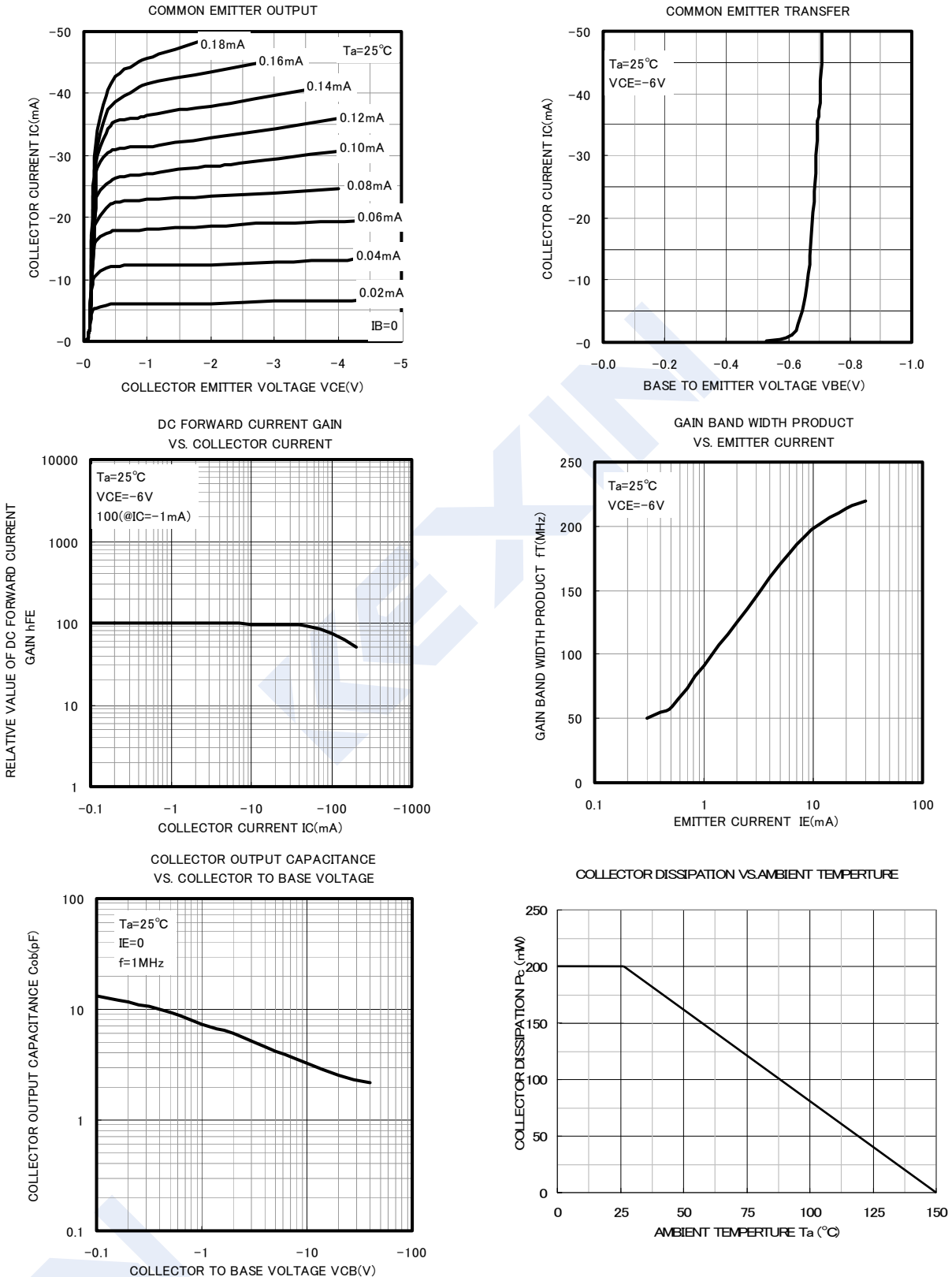
Classification of $h_{FE}(1)$

Type	2SA1235-E-HF	2SA1235-F-HF	2SA1235-G-HF
Range	150-300	250-500	400-800
Marking	ME _F	MF _F	MG _F

PNP Transistors

2SA1235-HF

Typical Characteristics



PNP Transistors

2SA1235-HF

■ Typical Characteristics

