



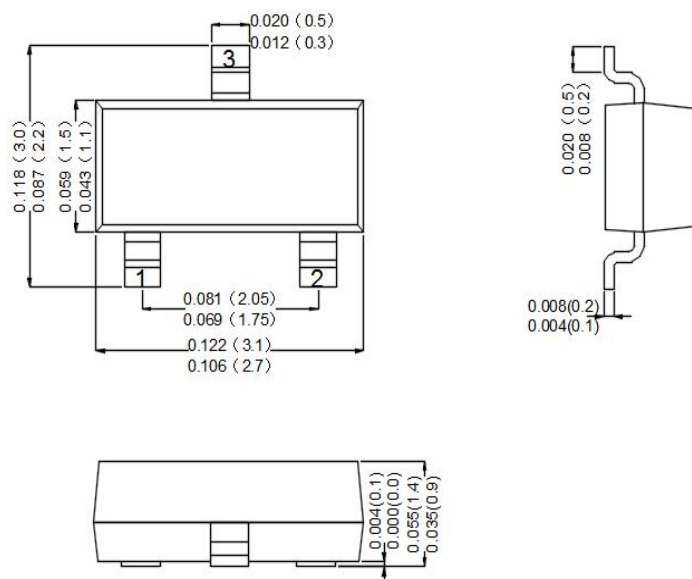
Features

- For general AF applications
- High collector current
- High current gain
- Low collector-emitter saturation voltage
- Complementary types: BC808 (PNP)

Mechanical Data

- Case: Molded Plastic, SOT-23
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Plated Leads Solderable per MIL-STD-750, Method-2026.
- Marking: BC818-16:6E; BC818-25:6F; BC818-40:6G
- Mounting Position : Any.
- Equivalent Circuit:

SOT-23



Dimensions in inches and (millimeters)

Maximum Ratings Maximum Ratings (Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	Value	Units
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CEO}	25	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current -Continuous	I_C	0.5	A
Collector Power Dissipation	P_C	0.3	W
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55-150	°C

**Electrical Characteristics** (Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	V_{CBO}	$I_C = 10\mu A, I_E = 0$	30			V
Collector-emitter breakdown voltage	V_{CEO}	$I_C = 10mA, I_B = 0$	25			V
Emitter-base breakdown voltage	V_{EBO}	$I_E = 1\mu A, I_C = 0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB} = 45V, I_E = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 4V, I_C = 0$			0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = 1V, I_C = 100mA$	100		600	
	$h_{FE(2)}$	$V_{CE} = 1V, I_C = 500mA$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500mA, I_B = 50mA$			0.7	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500mA, I_B = 50mA$			1.2	V
Base-emitter voltage	V_{BE}	$V_{CE} = 1V, I_C = 500mA$			1.2	V
Collector capacitance	C_{ob}	$V_{CB} = 10V, f = 1MHz$		10		pF
Transition frequency	f_T	$V_{CE} = 5V, I_C = 10mA$ $f = 100MHz$	100			MHz

CLASSIFICATION OF $h_{FE(1)}$

Rank	BC818-16	BC818-25	BC818-40
Range	100-250	160-400	250-600
Marking	6E	6F	6G



Rating And Characteristic Curves

Fig. 1, Power Derating Curve

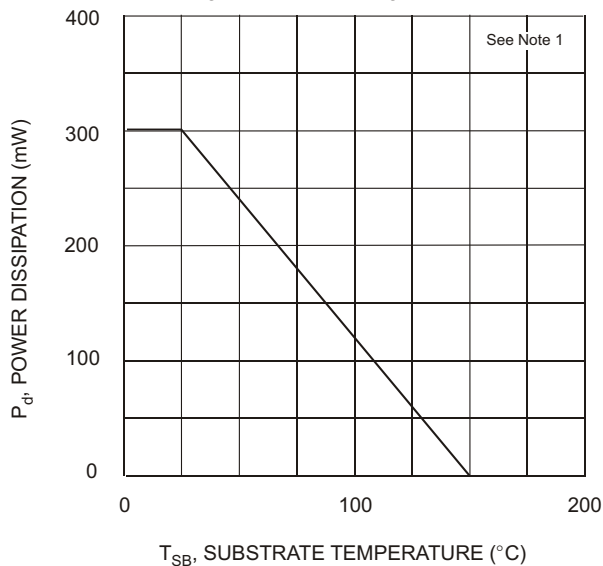


Fig. 2, Gain-Bandwidth Product vs Collector Current

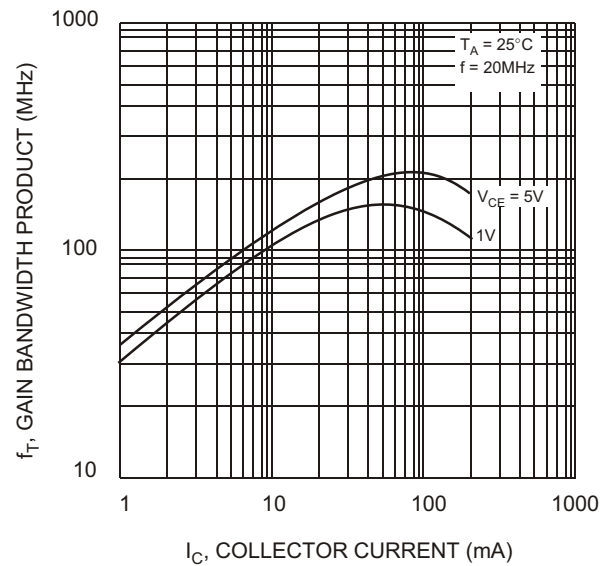


Fig. 3, Collector Sat. Voltage vs Collector Current

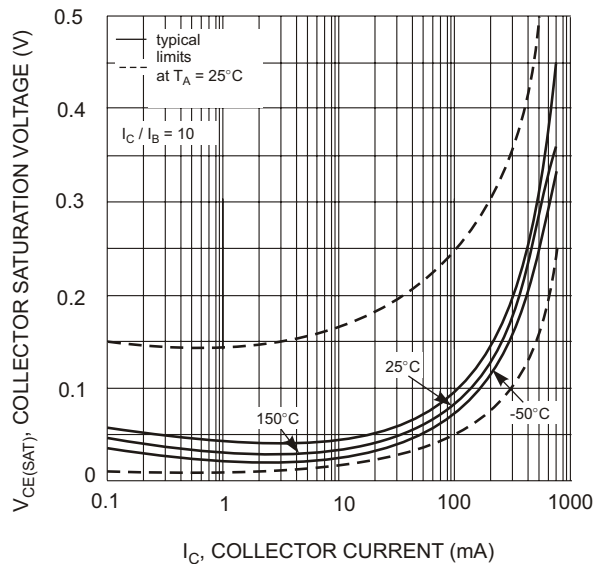


Fig. 4, DC Current Gain vs Collector Current

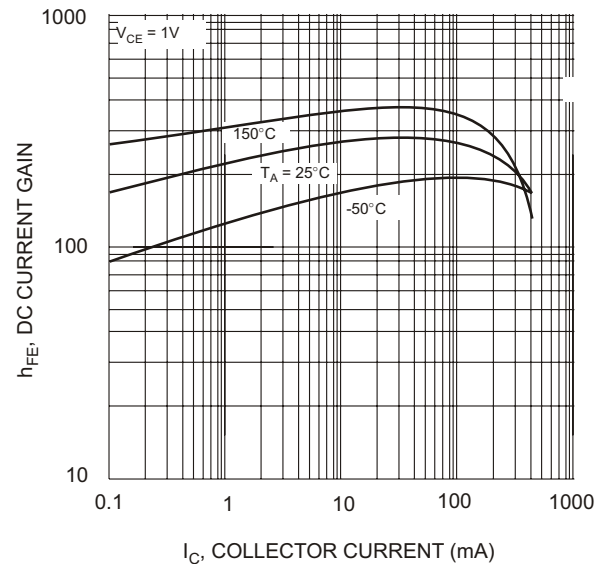


Fig. 5, Typical Emitter-Collector Characteristics

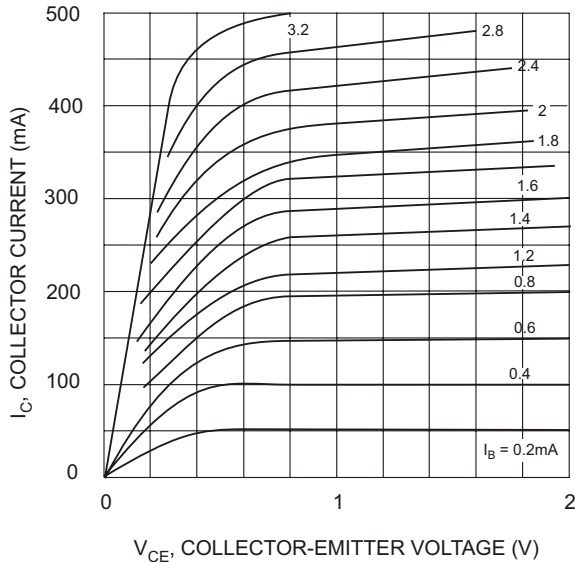
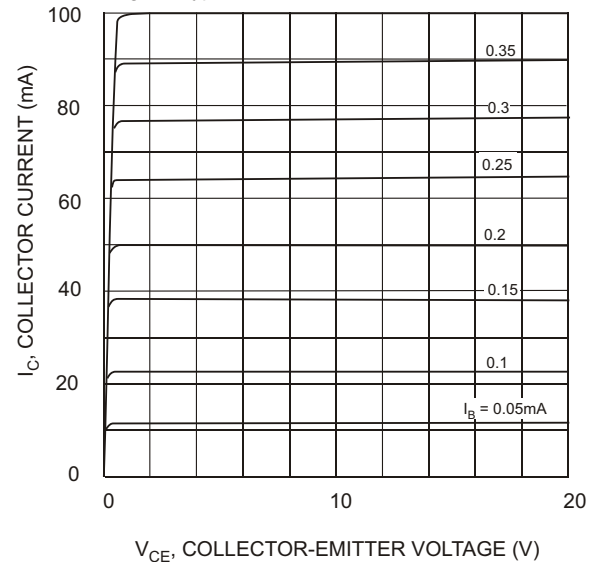


Fig. 6, Typical Emitter-Collector Characteristics





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