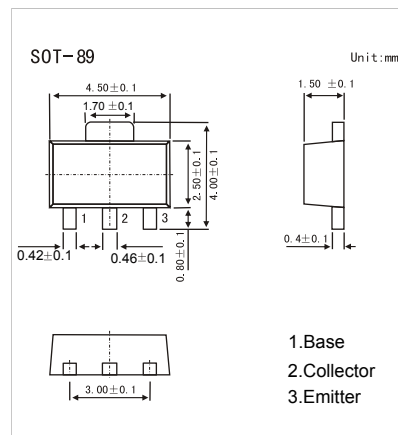


PNP Transistors

2SA1898

■ Features

- Large current capacity.
- Low collector-to-emitter saturation voltage.
- Fast switching speed.

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	-15	V
Collector - Emitter Voltage	V_{CE0}	-15	
Emitter - Base Voltage	V_{EB0}	-5	
Collector Current - Continuous	I_C	-3	A
Collector Current - Pulse	I_{CP}	-5	
Base Current	I_B	-0.6	
Collector Power Dissipation	P_C	1.3	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature range	T_{stg}	-55 to 150	

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CB0}	$I_C = -100\ \mu\text{A}$, $I_E = 0$	-15			V
Collector- emitter breakdown voltage	V_{CE0}	$I_C = -1\ \text{mA}$, $R_{BE} = \infty$	-15			
Emitter - base breakdown voltage	V_{EB0}	$I_E = -100\ \mu\text{A}$, $I_C = 0$	-5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = -12\ \text{V}$, $I_E = 0$			-1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -3\ \text{V}$, $I_C = 0$			-1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -1.5\ \text{A}$, $I_B = -75\ \text{mA}$		-0.25	-0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -1.5\ \text{A}$, $I_B = -75\ \text{mA}$		-0.95	-1.2	
DC current gain	h_{FE}	$V_{CE} = -2\ \text{V}$, $I_C = -500\ \text{mA}$	100		280	
		$V_{CE} = -2\ \text{V}$, $I_C = -3\ \text{A}$	50			
Turn-ON Time	t_{on}	See specified Test Circuit.		30	60	ns
Storage Time	t_{stg}			100	200	
Turn-OFF Time	t_{off}			120	220	
Collector output capacitance	C_{ob}	$V_{CB} = -10\ \text{V}$, $I_E = 0$, $f = 1\ \text{MHz}$		28		pF
Transition frequency	f_T	$V_{CE} = -2\ \text{V}$, $I_C = -0.3\ \text{A}$		300		MHz

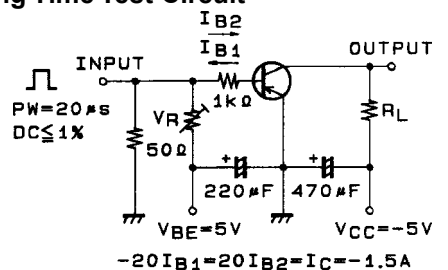
■ Classification of $h_{FE}(1)$

Type	2SA1898-R	2SA1898-S
Range	100-200	140-280
Marking	ANR	ANS

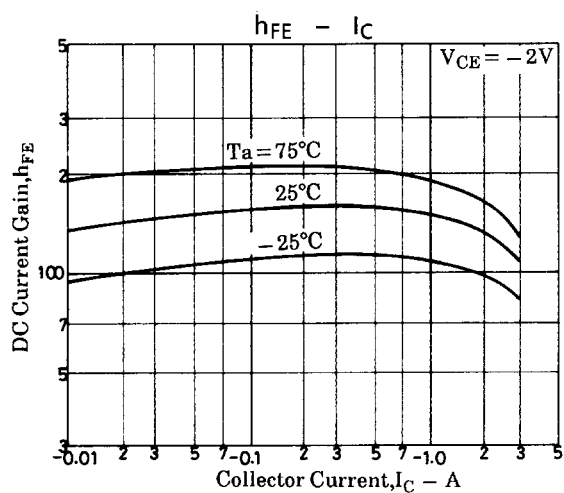
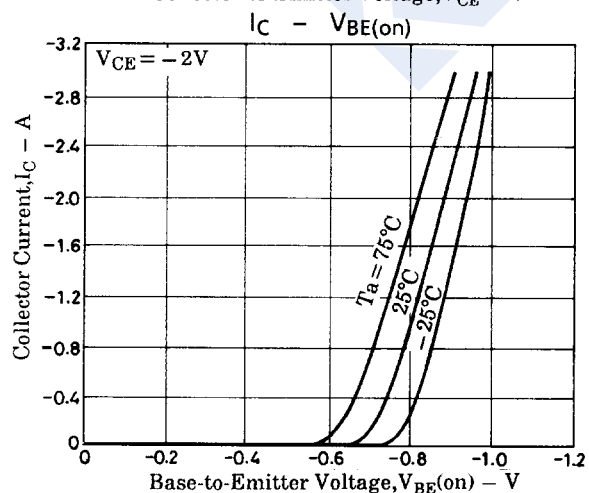
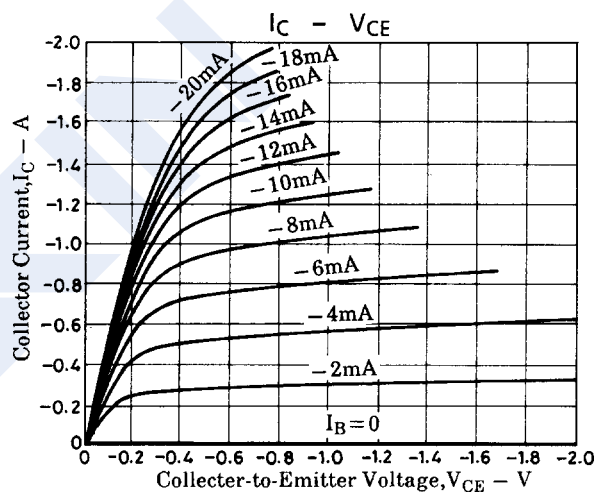
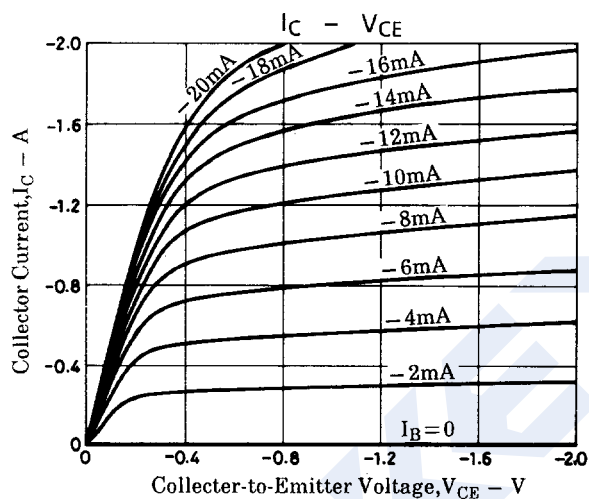
PNP Transistors

2SA1898

Switching Time Test Circuit



■ Typical Characteristics



PNP Transistors

2SA1898

■ Typical Characteristics

