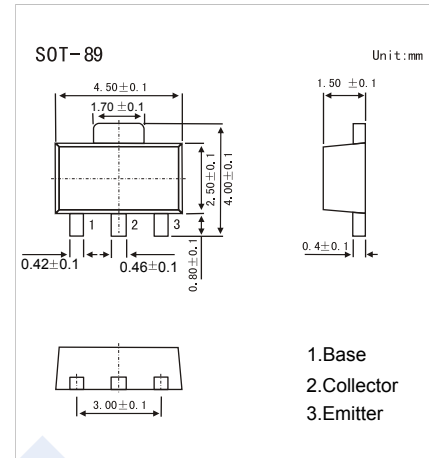


PNP Transistors

2SA1729

■ Features

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

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	-50	V
Collector - Emitter Voltage	V_{CE0}	-40	
Emitter - Base Voltage	V_{EB0}	-5	
Collector Current - Continuous	I_c	-1.5	A
Collector Current - Pulse	I_{cp}	-3	
Collector Power Dissipation (Note.1)	P_c	1.3	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature range	T_{stg}	-55 to 150	

Note.1: Mounted on ceramic board (250mm² X 0.8mm)

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CB0}	$I_c = -100\text{ }\mu\text{A}$, $I_E = 0$	-50			V
Collector- emitter breakdown voltage	V_{CE0}	$I_c = -1\text{ mA}$, $R_{BE} = \infty$	-40			
Emitter - base breakdown voltage	V_{EB0}	$I_E = -100\text{ }\mu\text{A}$, $I_c = 0$	-5			
Collector-base cut-off current	I_{CB0}	$V_{CB} = -40\text{ V}$, $I_E = 0$			-1	μA
Emitter cut-off current	I_{EB0}	$V_{EB} = -3\text{ V}$, $I_c = 0$			-1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c = -800\text{ mA}$, $I_B = -40\text{ mA}$		-0.3	-0.8	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_c = -800\text{ mA}$, $I_B = -40\text{ mA}$		-0.9	-1.3	
DC current gain	$h_{FE(1)}$	$V_{CE} = -2\text{ V}$, $I_c = -100\text{ mA}$	70		280	
	$h_{FE(2)}$	$V_{CE} = -2\text{ V}$, $I_c = -1.5\text{ A}$	25			
Turn-on Time	t_{on}	See specified Test Circuit		50	100	ns
Storage time	t_{stg}			120	220	
Turn-off time	t_{off}			150	300	
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{ V}$, $f = 1\text{ MHz}$		18		pF
Transition frequency	f_T	$V_{CE} = -2\text{ V}$, $I_c = -100\text{ mA}$		300		MHz

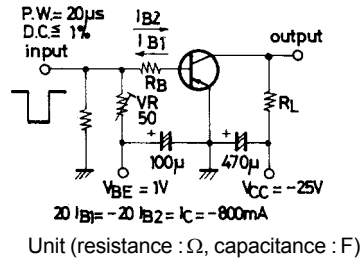
■ Classification of $h_{FE(1)}$

Type	2SA1729-Q	2SA1729-R	2SA1729-S
Range	70-140	100-200	140-280
Marking	AGQ	AGR	AGS

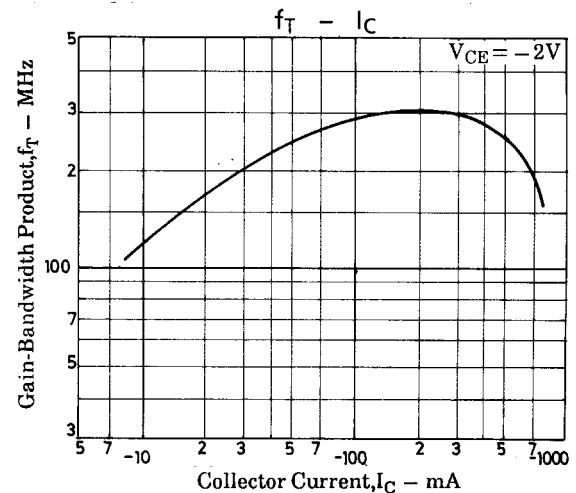
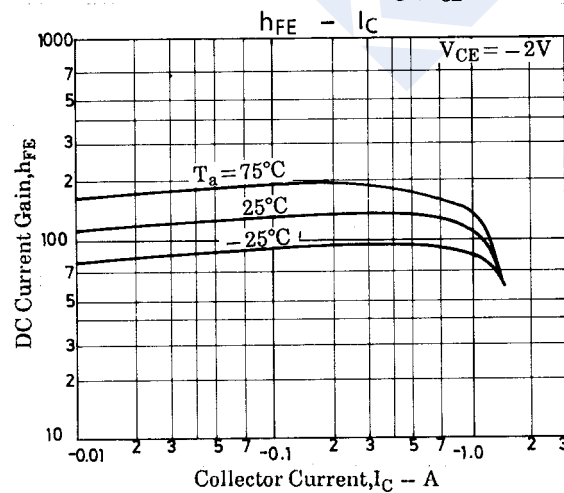
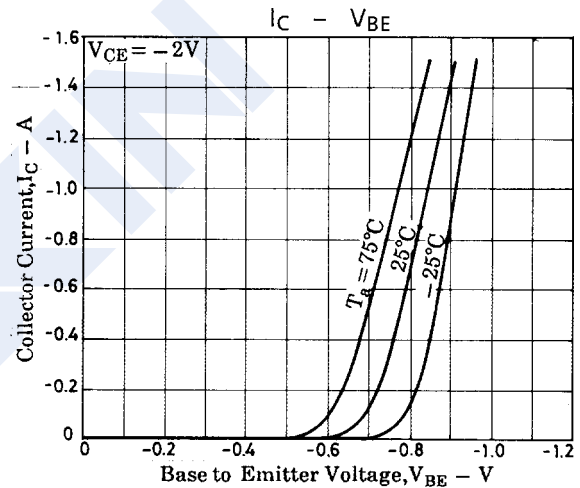
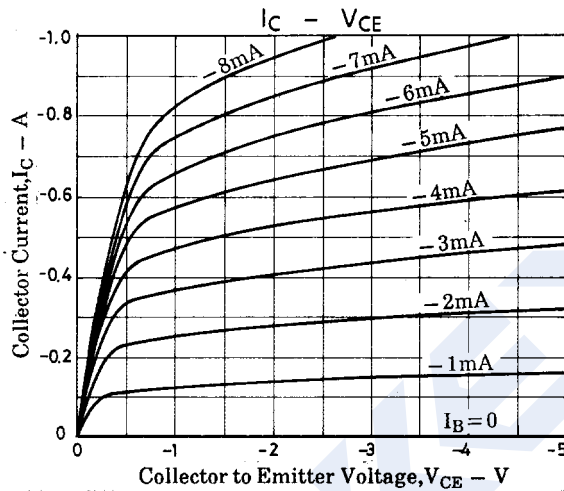
PNP Transistors

2SA1729

Switching Time Test Circuit



■ Typical Characteristics



PNP Transistors

2SA1729

■ Typical Characteristics

