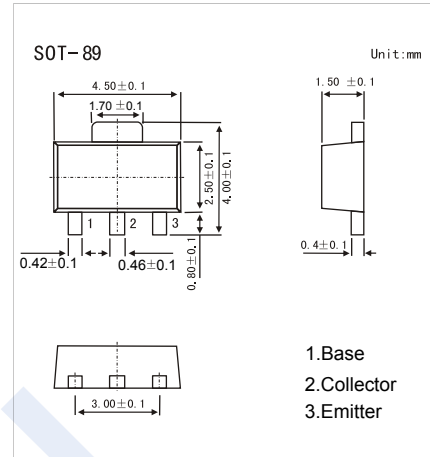


NPN Transistors

2SD1618

■ Features

- Low collector-to-emitter saturation voltage.
- Very small size making it easy to provide highdensity, small-sized hybrid IC's.
- Complementary to 2SB1118



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V _{CB0}	20	V
Collector - Emitter Voltage	V _{CE0}	15	
Emitter - Base Voltage	V _{EBO}	5	
Collector Current - Continuous	I _C	0.7	A
Collector Current - Pulse	I _{CP}	1.5	
Collector Power Dissipation (Note.1)	P _C	0.5 1.3	W
Junction Temperature	T _J	150	
Storage Temperature Range	T _{stg}	-55 to 150	

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

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V _{CB0}	I _C = 100 uA, I _E = 0	20			V
Collector- emitter breakdown voltage	V _{CE0}	I _C = 1 mA, R _{BE} = ∞	15			
Emitter - base breakdown voltage	V _{EBO}	I _E = 100 uA, I _C = 0	5			
Collector-base cut-off current	I _{CB0}	V _{CB} = 15 V, I _E = 0			0.1	uA
Emitter cut-off current	I _{EBO}	V _{EB} = 4V, I _C =0			0.1	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =5 mA, I _B =0.5 mA I _C =100 mA, I _B =10 mA		10 30	25 80	mV
Base - emitter saturation voltage	V _{BE(sat)}	I _C =100 mA, I _B =10 mA		0.8	1.2	
DC current gain	h _{FE}	V _{CE} = 2V, I _C = 50 mA V _{CE} = 2V, I _C = 500 mA	140 60		560	
Collector output capacitance	C _{ob}	V _{CB} = 10V, I _E = 0, f=1MHz		8		
Transition frequency	f _T	V _{CE} = 10V, I _C = 50mA		250		MHz

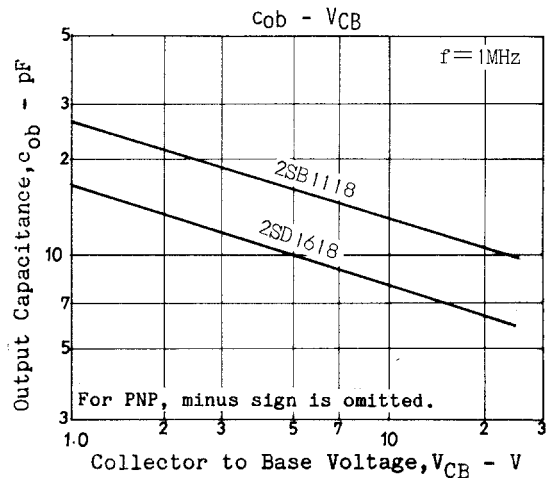
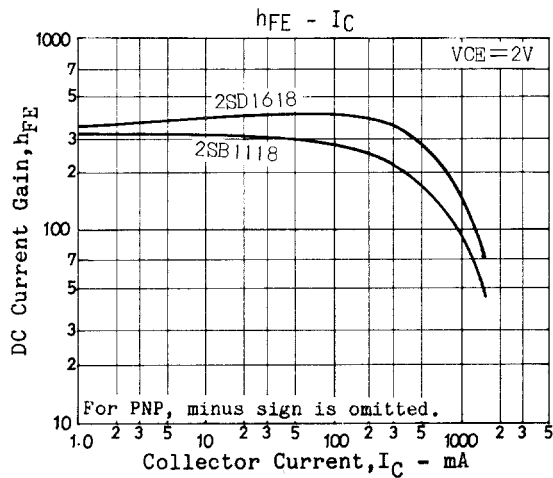
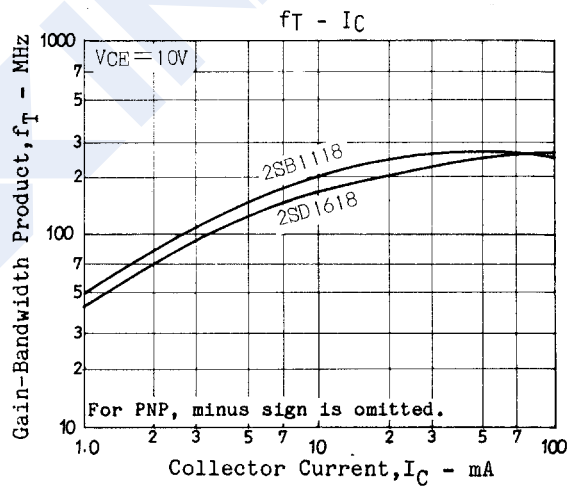
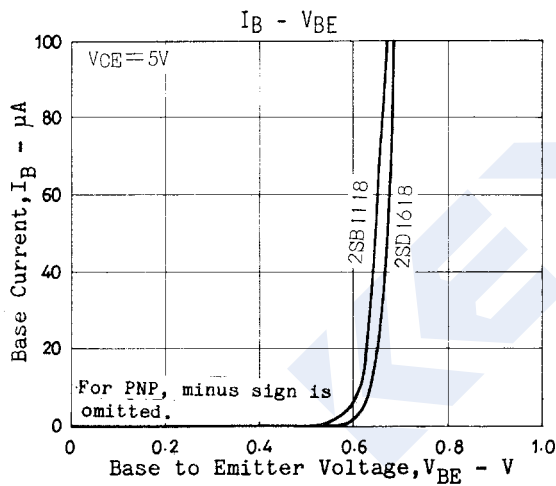
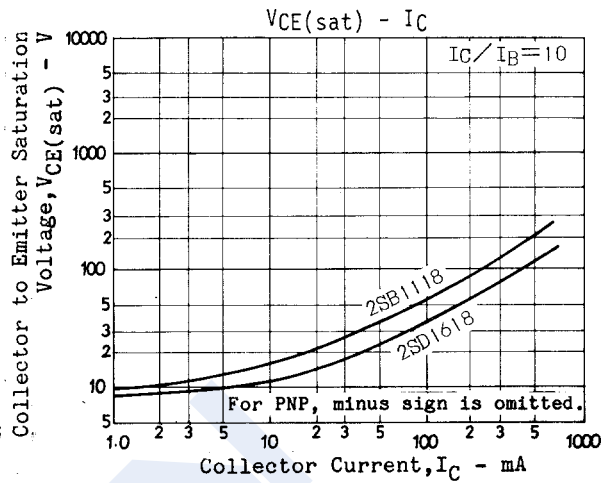
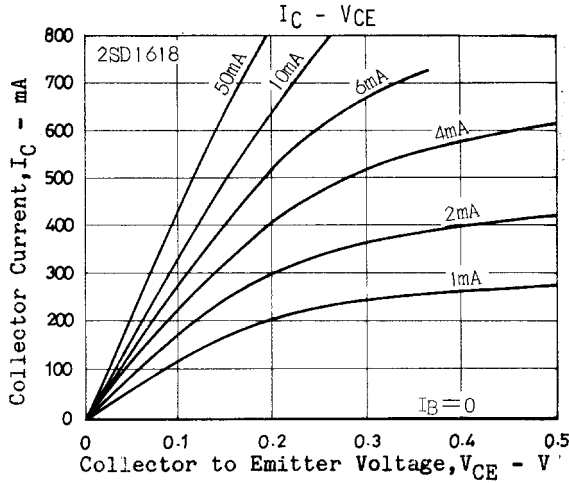
■ Classification of h_{fe}(1)

Type	2SD1618-S	2SD1618-T	2SD1618-U
Range	140-280	200-400	280-560
Marking	DA S*	DA T*	DA U*

NPN Transistors

2SD1618

■ Typical Characteristics



NPN Transistors

2SD1618

■ Typical Characteristics

