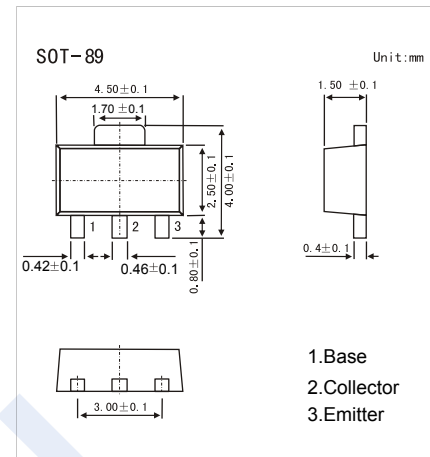


NPN Transistors

2SD1418-HF

■ Features

- Low frequency power amplifier
- Complementary to 2SB1025-HF
- Pb-Free Package May be Available. The G-Suffix Denotes a Pb-Free Lead Finish



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V _{CB0}	120	V
Collector - Emitter Voltage	V _{CE0}	80	
Emitter - Base Voltage	V _{EB0}	5	
Collector Current - Continuous	I _C	1	A
Collector Current - Pulse (Note.1)	I _{CP}	2	
Collector Power Dissipation	P _C	1	W
Junction Temperature	T _J	150	°C
Storage Temperature Range	T _{stg}	-55 to 150	

Note.1:PW ≤ 10 ms, Duty cycle ≤ 20%.

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{CB0}	I _C = 100 μA, I _E = 0	120			V
Collector-emitter breakdown voltage	V _{CE0}	I _C = 1 mA, R _{BE} = ∞	80			
Emitter - base breakdown voltage	V _{EB0}	I _E = 100 μA, I _C = 0	5			
Collector-base cut-off current	I _{CB0}	V _{CB} = 100 V, I _E = 0			10	μA
Emitter cut-off current	I _{EB0}	V _{EB} = 5V, I _C =0			0.1	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =500 mA, I _B =50 mA			1	V
Base - emitter saturation voltage	V _{BE(sat)}	I _C =500 mA, I _B =50 mA			1.2	
Base - emitter voltage	V _{BE}	V _{CE} = 5V, I _C = 150 mA			1.5	
DC current gain	h _{FE}	V _{CE} = 5V, I _C = 150 mA	60		320	
		V _{CE} = 5V, I _C = 500 mA	30			
Collector output capacitance	C _{ob}	V _{CB} = 10V, I _E = 0, f=1MHz		12		pF
Transition frequency	f _T	V _{CE} = 5V, I _C = 150mA		140		MHz

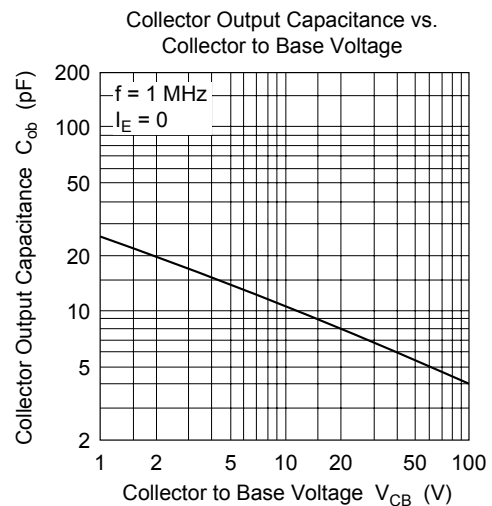
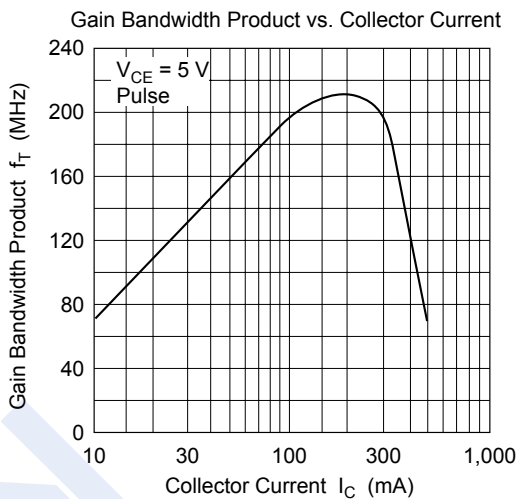
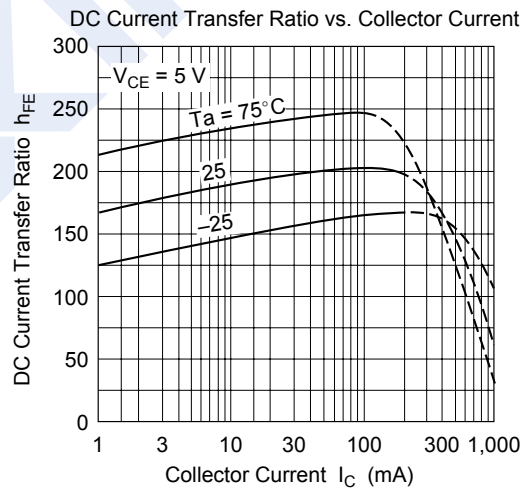
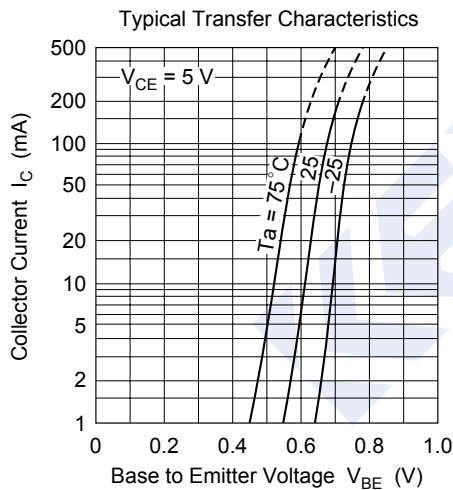
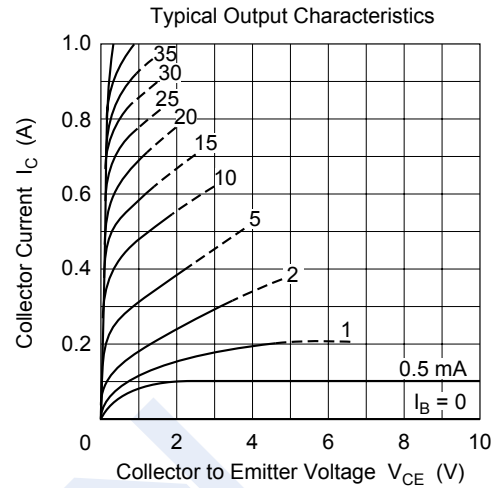
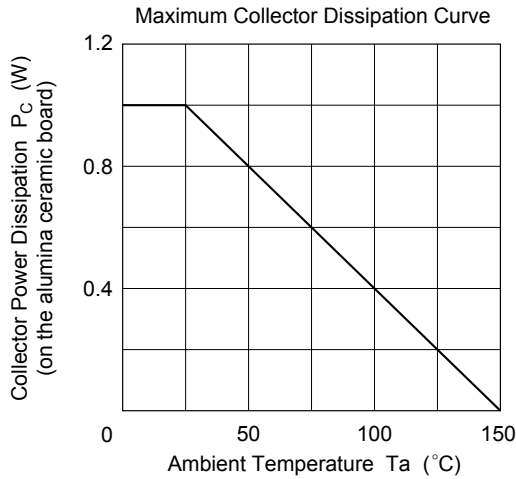
■ Classification of h_{FE}(1)

Type	2SD1418-A-HF	2SD1418-B-HF	2SD1418-C-HF
Range	60-120	100-200	160-320
Marking	DA _F	DB _F	DC _F

NPN Transistors

2SD1418-HF

■ Typical Characteristics



NPN Transistors

2SD1418-HF

■ Typical Characteristics

