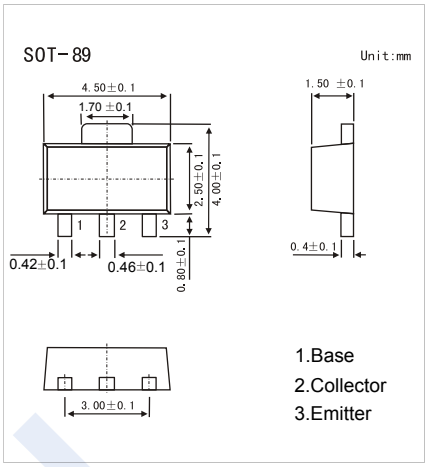
NPN Transistors

2SC4080-HF



■ Features

- ● High f_T.
- ● High breakdown voltage.
- ● Complementary to 2SA1575-HF
- ● Pb−Free Package May be Available. The G−Suffix Denotes a Pb−Free Lead Finish

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	200	V
Collector - Emitter Voltage	V_{CEO}	200	
Emitter - Base Voltage	V_{EBO}	4	
Collector Current - Continuous	I_C	100	mA
Collector Current - Pulse	I_{CP}	200	
Collector Power Dissipation	P_C	500	mW
Junction Temperature	T_J	150	℃
Storage Temperature Range	T_{stg}	-55 to 150	

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= 100 uA, I_E= 0	200			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= 1 mA, R_{BE}= ∞	200			
Emitter - base breakdown voltage	V_{EBO}	I_E= 100 μA, I_C= 0	4			
Collector-base cut-off current	I_{CBO}	V_{CB}= 150V , I_E= 0			0.1	uA
Emitter cut-off current	I_{EBO}	V_{EB}= 4V , I_C=0			1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=20 mA, I_B=2mA			1	V
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=20 mA, I_B=2mA			1	
DC current gain	h_{FE}	V_{CE}= 10V, I_C= 10mA	40		320	
		V_{CE}= 10V, I_C= 60mA	20			
Reverse transfer capacitance	C_{re}	V_{CB}= 30V,f=1MHz		1.4		pF
Collector output capacitance	C_{ob}	V_{CB}= 30V, f=1MHz		1.8		
Transition frequency	f_T	V_{CE}= 30V, I_C= 30mA		400		MHz

■ Classification of $h_{fe(1)}$

Type	2SC4080-C-HF	2SC4080-D-HF	2SC4080-E-HF	2SC4080-F-HF
Range	40-80	60-120	100-200	160-320
Marking	CIC F	CID F	CIE F	CIF F