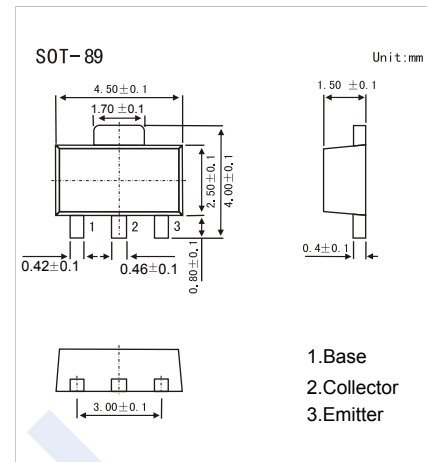


NPN Transistors

2SC4115-HF

■ Features

- Collector Current Capability $I_C=3A$
- Collector Emitter Voltage $V_{CE0}=20V$
- Complements to 2SA1585-HF
- Pb-Free Package May be Available. The G-Suffix Denotes a Pb-Free Lead Finish



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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	40	V
Collector - Emitter Voltage	V_{CE0}	20	
Emitter - Base Voltage	V_{EB0}	6	
Collector Current - Continuous	I_C	3	A
Collector Power Dissipation	P_C	500	mW
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55 to 150	

■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CB0}	$I_C = 100 \mu A, I_E = 0$	40			V
Collector- emitter breakdown voltage	V_{CE0}	$I_C = 1 mA, I_B = 0$	20			
Emitter - base breakdown voltage	V_{EB0}	$I_E = 100 \mu A, I_C = 0$	6			
Collector-base cut-off current	I_{CB0}	$V_{CB} = 30 V, I_E = 0$			0.1	μA
Emitter cut-off current	I_{EB0}	$V_{EB} = 5 V, I_C = 0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 2 A, I_B = 100 mA$			0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 2 A, I_B = 100 mA$			1.2	
DC current gain	h_{FE}	$V_{CE} = 2 V, I_C = 100 mA$	120		560	
Transition frequency	f_T	$V_{CE} = 2 V, I_C = 0.5 A, f = 100 MHz$	200	290		MHz

■ Classification of h_{FE}

Type	2SC4115-Q-HF	2SC4115-R-HF	2SC4115-S-HF
Range	120-270	180-390	270-560
Marking	4115Q _F	4115R _F	4115S _F