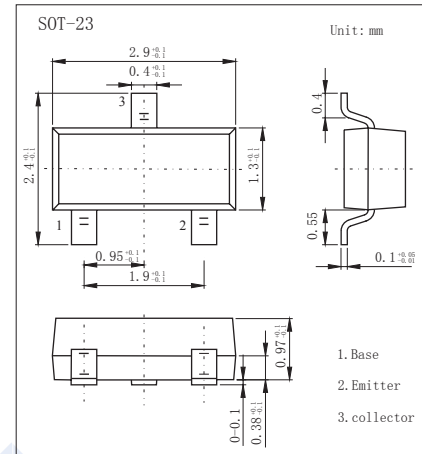


NPN Transistors

2SC2411-HF (2SC2411K-HF)

■ Features

- Collector Current Capability $I_C=0.5A$
- Low $V_{CE(sat)}$. Optimal for low voltage operation.
- Complements the 2SA1036-HF/2SA1036K-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_{CBO}	40	V
Collector - Emitter Voltage	V_{CEO}	32	
Emitter - Base Voltage	V_{EBO}	5	
Collector Current - Continuous	I_C	500	mA
Collector Power Dissipation	P_C	200	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_{CBO}	$I_C = 100 \mu A, I_E = 0$	40			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = 1 mA, I_B = 0$	32			
Emitter - base breakdown voltage	V_{EBO}	$I_E = 100 \mu A, I_C = 0$	5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = 20 V, I_E = 0$			1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 4 V, I_C = 0$			1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500 mA, I_B = 50 mA$			0.4	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500 mA, I_B = 50 mA$			1.2	
DC current gain	h_{FE}	$V_{CE} = 3 V, I_C = 100 mA$	82		390	
Collector output capacitance	C_{ob}	$V_{CB} = 10 V, I_E = 0, f = 1 MHz$		6		pF
Transition frequency	f_T	$V_{CE} = 5 V, I_C = 20 mA, f = 100 MHz$		250		MHz

■ Classification of h_{FE}

Type	2SC2411-P-HF	2SC2411-Q-HF	2SC2411-R-HF
Range	82-180	120-270	180-390
Marking	CP _F	CQ _F	CR _F