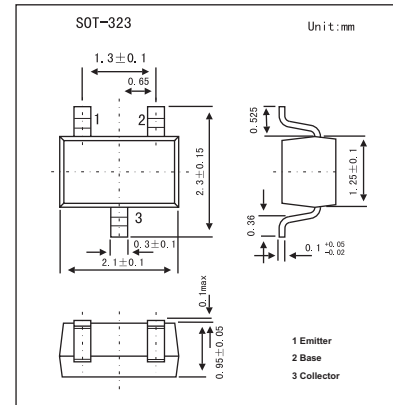


Silicon NPN Epitaxial

2SC4118

■ Features

- Excellent hFE linearity : $h_{FE}(2) = 25$ (min) ($V_{CE} = 6\text{ V}$, $I_C = 400\text{ mA}$)

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	35	V
Collector-emitter voltage	V_{CEO}	30	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	500	mA
Base current	I_B	50	mA
Collector power dissipation	P_C	100	mW
Junction temperature	T_J	125	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +125	$^\circ\text{C}$

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cut-off current	I_{CBO}	$V_{CB} = 35\text{ V}$, $I_E = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5\text{ V}$, $I_C = 0$			0.1	μA
DC current gain	h_{FE}	$V_{CE} = 1\text{ V}$, $I_C = 100\text{ mA}$	70		240	
		$V_{CE} = 6\text{ V}$, $I_C = 400\text{ mA}$	25			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100\text{ mA}$, $I_B = 10\text{ mA}$		0.1	0.25	V
Base-emitter voltage	V_{BE}	$V_{CE} = 1\text{ V}$, $I_C = 100\text{ mA}$		0.8	1.0	V
Transition frequency	f_T	$V_{CE} = 6\text{ V}$, $I_C = 20\text{ mA}$		300		MHz
Collector output capacitance	C_{ob}	$V_{CB} = 6\text{ V}$, $I_E = 0$, $f = 1\text{ MHz}$		7		pF

■ hFE Classification

Marking	WO	WY
hFE	70~140	120~240