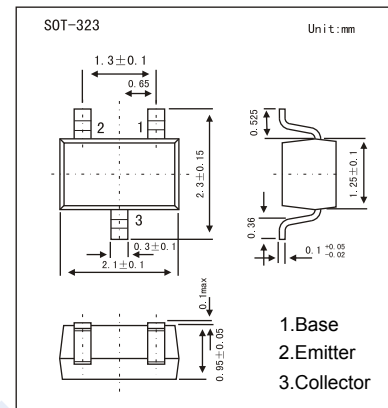


PNP Transistors

2SA1588

■ Features

- Excellent hFE linearity : $h_{FE}(2) = 25$ (min)
at $V_{CE} = -6\text{ V}$, $I_C = -400\text{ mA}$
- Complementary to 2SC4118

■ 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	
Emitter - Base Voltage	V_{EBO}	-5	
Collector Current - Continuous	I_C	-500	mA
Base Current	I_B	-50	
Collector Power Dissipation	P_C	100	mW
Junction Temperature	T_J	125	$^\circ\text{C}$
Storage Temperature range	T_{stg}	-55 to 125	

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	$I_C = -100\text{ }\mu\text{A}$, $I_E = 0$	-35			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = -1\text{ mA}$, $I_B = 0$	-30			
Emitter - base breakdown voltage	V_{EBO}	$I_E = -100\text{ }\mu\text{A}$, $I_C = 0$	-5			
Collector-base 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	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100\text{ mA}$, $I_B = -10\text{ mA}$		-0.1	-0.25	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -100\text{ mA}$, $I_B = -10\text{ mA}$			-1.2	
Base - emitter voltage	V_{BE}	$V_{CE} = -1\text{ V}$, $I_C = -100\text{ mA}$		-0.8	-1	
DC current gain	$h_{FE(1)}$	$V_{CE} = -1\text{ V}$, $I_C = -100\text{ mA}$	70		400	
	$h_{FE(2)}$	$V_{CE} = -6\text{ V}$, $I_C = -400\text{ mA}$ O	25			
		Y	40			
		GR	75			
Collector output capacitance	C_{ob}	$V_{CB} = -6\text{ V}$, $I_E = 0$, $f = 1\text{ MHz}$		13		pF
Transition frequency	f_T	$V_{CE} = -6\text{ V}$, $I_C = -20\text{ mA}$		200		MHz

■ Classification of h_{FE} (1)

Type	2SA1588-O	2SA1588-Y	2SA1588-G
Range	70-140	120-240	200-400
Marking	ZO	ZY	ZG

PNP Transistors

2SA1588

■ Typical Characteristics

