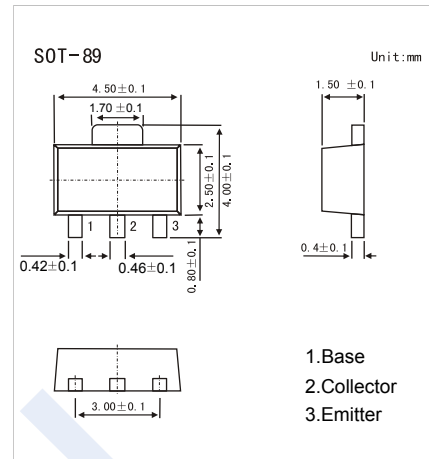


PNP Transistors

2SA1664

■ Features

- Small Flat Package
- High Current Application
- High Transition Frequency



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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	-35	V
Collector - Emitter Voltage	V_{CE0}	-30	
Emitter - Base Voltage	V_{EB0}	-5	
Collector Current - Continuous	I_C	-800	mA
Collector Power Dissipation	P_C	500	mW
Thermal Resistance From Junction to Ambient	$R_{\theta JA}$	250	$^\circ\text{C}/\text{W}$
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature range	T_{stg}	-55 to 150	

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CB0}	$I_C = -1\text{mA}, I_E = 0$	-35			V
Collector- emitter breakdown voltage	V_{CE0}	$I_C = -10\text{mA}, I_B = 0$	-30			
Emitter - base breakdown voltage	V_{EB0}	$I_E = -1\text{mA}, I_C = 0$	-5			
Collector-base cut-off current	I_{CB0}	$V_{CB} = -35\text{V}, I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EB0}	$V_{EB} = -5\text{V}, I_C = 0$			-0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500\text{mA}, I_B = -20\text{mA}$			-0.7	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -500\text{mA}, I_B = -20\text{mA}$			-1.2	
Base - emitter voltage	V_{BE}	$V_{CE} = -1\text{V}, I_C = -10\text{mA}$	-0.5		-0.8	
DC current gain	$h_{FE(1)}$	$V_{CE} = -1\text{V}, I_C = -100\text{mA}$	100		320	
	$h_{FE(2)}$	$V_{CE} = -1\text{V}, I_C = -700\text{mA}$	35			
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$		19		pF
Transition frequency	f_T	$V_{CE} = -5\text{V}, I_C = -10\text{mA}$		120		MHz

■ Classification of $h_{FE(1)}$

Type	2SA1664-O	2SA1664-Y
Range	100-200	160-320
Marking	RO	RY