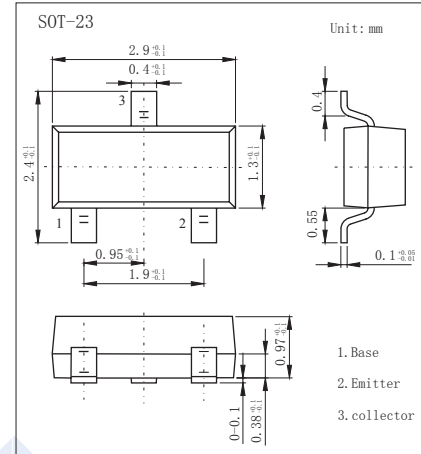


## PNP Transistors

### 2SA1738

#### ■ Features

- Collector Current Capability  $I_C = -50\text{mA}$
- Collector Emitter Voltage  $V_{CE0} = -15\text{V}$
- Complementary to 2SC3757



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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CB0}$	-15	V
Collector - Emitter Voltage	$V_{CE0}$	-15	
Emitter - Base Voltage	$V_{EB0}$	-4	
Collector Current - Continuous	$I_C$	-50	mA
Collector Current - Pulse	$I_{CP}$	-100	
Collector Power Dissipation	$P_C$	200	mW
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	$V_{CB0}$	$I_C = -100\ \mu\text{A}$ , $I_E = 0$	-15			V
Collector- emitter breakdown voltage	$V_{CE0}$	$I_C = -1\ \text{mA}$ , $I_B = 0$	-15			
Emitter - base breakdown voltage	$V_{EB0}$	$I_E = -100\ \mu\text{A}$ , $I_C = 0$	-4			
Collector-base cut-off current	$I_{CBO}$	$V_{CB} = -8\ \text{V}$ , $I_E = 0$			-0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -3\ \text{V}$ , $I_C = 0$			-0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -10\ \text{mA}$ , $I_B = -1\ \text{mA}$			-0.2	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -10\ \text{mA}$ , $I_B = -1\ \text{mA}$			-1.2	
DC current gain	$h_{FE}$	$V_{CE} = -1\ \text{V}$ , $I_C = -10\ \text{mA}$	50		150	
		$V_{CE} = -1\ \text{V}$ , $I_C = -1\ \text{mA}$	30			
Turn-on time	$t_{on}$	See specified test circuit		12		ns
Storage time	$t_{stg}$			20		
Turn-off time	$t_{off}$			19		
Collector output capacitance	$C_{ob}$	$V_{CB} = -5\ \text{V}$ , $I_E = 0$ , $f = 1\ \text{MHz}$		1		pF
Transition frequency	$f_T$	$V_{CB} = -10\ \text{V}$ , $I_E = 10\ \text{mA}$ , $f = 200\ \text{MHz}$	800			MHz

#### ■ Classification of $h_{FE}(1)$

Type	2SA1738-Q	2SA1738-R
Range	50-120	90-150
Marking	AK Q*	AK R*

# PNP Transistors

## 2SA1738

■ Typical Characteristics

