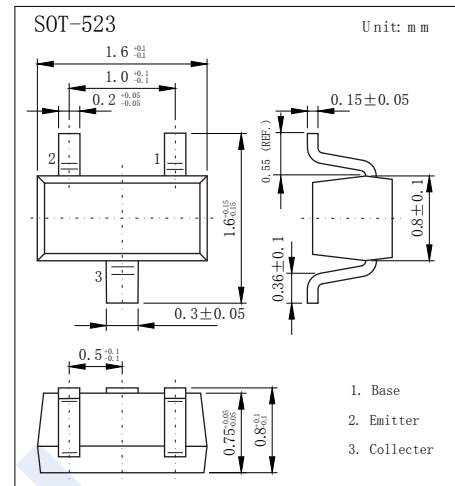


NPN Transistors

2SC4618

■ Features

- High Voltage and Current
- High DC Current Gain
- Small Package

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	40	V
Collector - Emitter Voltage	V_{CE0}	25	
Emitter - Base Voltage	V_{EB0}	5	
Collector Current - Continuous	I_C	50	mA
Collector Power Dissipation	P_C	150	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	833	$^\circ\text{C}/\text{W}$
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}	$I_C = 100 \mu\text{A}, I_E = 0$	40			V
Collector- emitter breakdown voltage	V_{CE0}	$I_C = 1 \text{ mA}, I_B = 0$	25			
Emitter - base breakdown voltage	V_{EB0}	$I_E = 100 \mu\text{A}, I_C = 0$	5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = 24 \text{ V}, I_E = 0$			500	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = 3 \text{ V}, I_C = 0$			500	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 10 \text{ mA}, I_B = 1 \text{ mA}$			0.3	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}	$V_{CE} = 6 \text{ V}, I_C = 1 \text{ mA}$	56		270	
Collector output capacitance	C_{ob}	$V_{CB} = 6 \text{ V}, I_E = 0, f = 1 \text{ MHz}$			2.2	pF
Transition frequency	f_T	$V_{CE} = 6 \text{ V}, I_C = 1 \text{ mA}, f = 100 \text{ MHz}$	150			MHz

■ Classification of h_{FE}

Marking	2SC4618-N	2SC4618-P	2SC4618-Q
Marking	56-120	82-180	120-270
Marking	AN	AP	AQ

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■ Typical Characteristics

