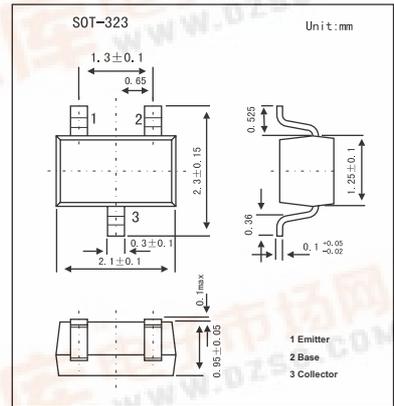


SMD Type Transistors

NPN General Purpose Transistor  
2PC4081

■ Features

- High current (max. 100 mA)
- Low voltage (max. 40 V)



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V <sub>CB0</sub>	50	V
Collector-emitter voltage	V <sub>CEO</sub>	40	V
Emitter-base voltage	V <sub>EB0</sub>	5	V
Collector current	I <sub>C</sub>	100	mA
Peak collector current	I <sub>CM</sub>	200	mA
Peak base current	I <sub>BM</sub>	200	mA
Total power dissipation *	P <sub>tot</sub>	200	mW
Storage temperature	T <sub>stg</sub>	-65 to +150	°C
Junction temperature	T <sub>j</sub>	150	°C
Operating ambient temperature	T <sub>amb</sub>	-65 to +150	°C
Thermal resistance from junction to ambient	R <sub>th j-a</sub>	625	K/W

\* Transistor mounted on an FR4 printed-circuit board.

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cut-off current	I <sub>CBO</sub>	I <sub>E</sub> = 0; V <sub>CB</sub> = 30 V			100	nA
		I <sub>E</sub> = 0; V <sub>CB</sub> = 30 V; T <sub>j</sub> = 150 °C			5	µA
Emitter cut-off current	I <sub>EB0</sub>	I <sub>C</sub> = 0; V <sub>EB</sub> = 4 V			100	nA
DC current gain 2PC4081Q 2PC4081R 2PC4081S	h <sub>FE</sub>	I <sub>C</sub> = 1 mA; V <sub>CE</sub> = 6 V	120		270	
			180		390	
			270		560	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = 50 mA; I <sub>B</sub> = 5 mA; *			400	mV
Collector capacitance	C <sub>c</sub>	I <sub>E</sub> = i <sub>e</sub> = 0; V <sub>CB</sub> = 12 V; f = 1 MHz		2	3.5	pF
Transition frequency	f <sub>T</sub>	I <sub>C</sub> = 2 mA; V <sub>CE</sub> = 12 V; f = 100 MHz	100			MHz

\* Pulse test: t<sub>p</sub> ≤ 300 µs; δ ≤ 0.02.

■ hFE Classification

TYPE	2PC4081Q	2PC4081R	2PC4081S
Marking	ZQ	ZR	ZS

