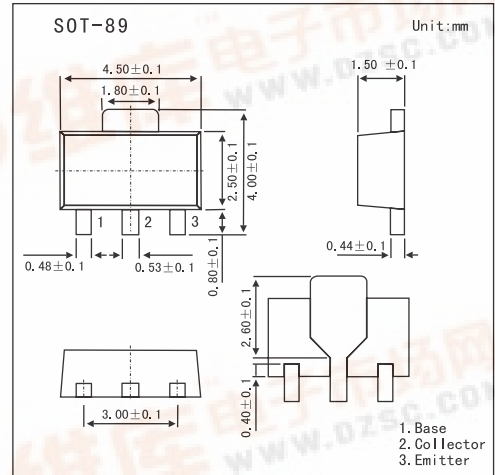


SMD Type Transistors

NPN Silicon Transistors
2SC4942

■ Features

- New package with dimensions in between those of small signal and power signal package
- High voltage
- Fast switching speed



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector to base voltage	V _{CB0}	600	V
Collector to emitter voltage	V _{CEO}	600	V
Emitter to base voltage	V _{EB0}	7	V
Collector current (DC)	I _{D(DC)}	1	A
Collector current (pulse)	I _{D(pulse)} *1	2	A
Total power dissipation	P _T *2	2	W
Junction temperature	T _J	150	°C
Storage temperature	T _{stg}	-55 to 150	°C

*1 PW ≤ 10 ms, duty cycle ≤ 50 %

*2 7.5 cm² X 0.7 mm ceramic board mounted

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	I _{CB0}	V _{CB} = 600 V, I _E = 0			10	μA
Emitter cutoff current	I _{EB0}	V _{EB} = 7.0 V, I _C = 0			10	μA
DC current gain	h _{FE}	V _{CE} = 5.0 V, I _C = 0.1 A	30	55	120	
		V _{CE} = 5.0 V, I _C = 0.5 A	5	10		
Collector saturation voltage	V _{CE(sat)}	I _C = 400 mV, I _B = 80 mA		0.35	1.0	V
Base saturation voltage	V _{BE(sat)}	I _C = 400 mV, I _B = 80 mA		0.9	1.2	V
Gain bandwidth product	f _T	V _{CE} = 5.0 V, I _E = ?50 mA		30		MHz
Output capacitance	C _{ob}	V _{CB} = 10 V, I _E = 0, f = 1.0 MHz		15		pF
Turn-on time	t _{ON}	I _C = 0.5 A, V _{CC} = 250 V		0.1	0.5	μs
Storage time	t _{stg}		I _{B1} = ?I _{B2} = 0.1 A		4.0	5.0
Fall time	t _F	R _L = 500Ω		0.2	0.5	μs

■ hFE Classification

Marking	AA1	AA2	AA3
hFE	30 to 60	40 to 80	60 to 120

