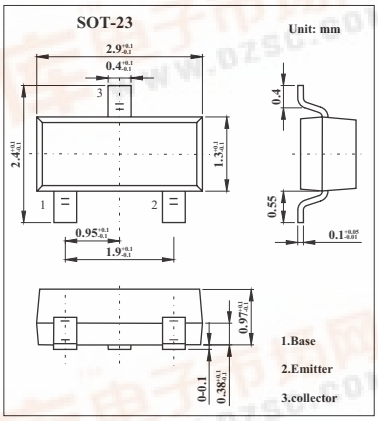
SMD Type Transistors

NPN Triple Diffused Planar Silicon Transistor

2SC4412



Features

- High breakdown voltage.
- Small reverse transfer capacitance and excellent high frequency characteristic(Cre : 1.0pF typ).
- Excellent DC current gain ratio(hFE ratio : 0.95 typ).

Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	300	V
Collector-emitter voltage	V_{CEO}	300	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	50	mA
Collector current (pulse)	I_{CP}	100	mA
Collector dissipation	P_C	250	mW
Jumction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = 200V , I_E = 0			0.1	μA
Emitter cutoff current	I_{EBO}	V_{EB} = 4V , I_C = 0			0.1	μA
DC current Gain	h_{FE}	V_{CE} = 6V , I_C = 0.1 mA	100		320	
		V_{CE} = 6V , I_C =1 mA	100			
Gain bandwidth product	f_T	V_{CE} = 30V , I_C = 10 mA		70		MHz
Output capacitance	C_{ob}	V_{CB} = 30V , f = 1MHz		1.5		pF
Reverse transfer capacitance	C_{re}	V_{CB} = 30V , f = 1MHz		1.0		pF
DC current gain ratio	$h_{FE\ ratio}$	$h_{FE}1$/ $h_{FE}2$		0.95		
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = 10mA , I_B = 1mA			1.0	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C = 10mA , I_B = 1mA			1.0	V
Collector-to-base breakdown voltage	$V_{(BR)CBO}$	I_C = 10μA , I_E = 0	300			V
Collector-to-emitter breakdown voltage	$V_{(BR)CEO}$	I_C = 1mA , R_{BE} = ∞	300			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E = 10μA , I_C = 0	5			V

h_{FE} Classification

Marking	QT	
Rank	4	5
hFE	100～200	160～320