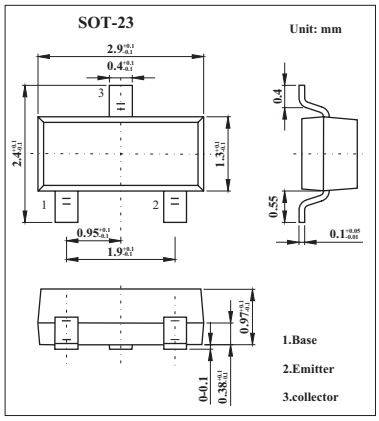
Silicon NPN Epitaxial

2SC2716



■ Features

● Low noise figure: NF = 3.5dB (max) (f = 1 MHz).

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	35	V
Collector-emitter voltage	V_{CEO}	30	V
Emitter-base voltage	V_{EBO}	4	V
Collector current	I_C	100	mA
Emitter current	I_E	-100	mA
Collector power dissipation	P_C	150	mW
Junction temperature	Tj	125	℃
Storage temperature range	T_{stg}	-55 to +125	℃

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cut-off current	I_{CBO}	V_{CB} = 20 V, I_E = 0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB} = 2 V, I_C = 0			1.0	μA
DC current gain	h_{FE}	V_{CE} = 12 V, I_C = 2 mA	40		240	
Collector-emitter saturation voltage	$V_{CE\ (sat)}$	I_C = 10 mA, I_B = 1 mA			0.4	V
Base-emitter saturation voltage	$V_{BE\ (sat)}$	I_C = 10 mA, I_B = 1 mA			1.0	V
Transition frequency	f_T	V_{CE} = 10V, I_C = 2 mA	80	120		MHz
Collector output capacitance	C_{ob}	V_{CB} = 10V, I_E = 0 , f = 1 MHz		2.2	3.0	pF
Collector-base time constant	Cc.rbb'	V_{CE} = 10V, I_E = -1 mA , f = 30 MHz		30	50	ps
Power gain	Gpe	V_{CC} = 10V, I_E = -1 mA , f = 1 MHz, Rg=50Ω		2.0	3.5	dB

■ h_{FE} Classification

Marking	FR	FO	FY
hFE	40～80	70～140	120～240