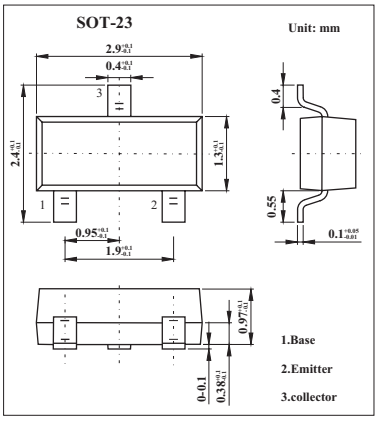
BCW60A/B/C/D

■ Features

● NPN epitaxial silicon transistor.



■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	32	V
Collector-emitter voltage	V_{CEO}	32	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	100	mA
Collector power dissipation	P_C	350	mW
Storage temperature	T_{stg}	150	℃

BCW60A/B/C/D

■ Electrical Characteristics Ta = 25℃

Parameter		Symbol	Testconditons	Min	Typ	Max	Unit
Collector-emitter breakdown voltage		BV_{CEO}	I_C=2mA, I_B=0	32			
Emitter-base breakdown voltage		BV_{EBO}	I_E=1μA, I_C=0	5			
Collector cut-off current		I_{CES}	V_{CE}=32V, V_{BE}=0			20	nA
Emitter cutoff current		I_{EBO}	I_C = 0; V_{EB} = 4 V			20	nA
DC Current Gain	BCW60B	h_{FE}	V_{CE}=5V, I_C=10μA	20			
	BCW60C			40			
	BCW60D			100			
	BCW60A		V_{CE}=5V, I_C=2mA	120		220	
	BCW60B			180		310	
	BCW60C			250		460	
	BCW60D			380		630	
	BCW60A		V_{CE}=1V, I_C=50mA	60			
	BCW60B			70			
	BCW60C			90			
	BCW60D			10			
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	I_C = 50 mA; I_B = 1.25 mA			0.55	V
			I_C = 10 mA; I_B = 0.25 mA			0.35	V
Base to emitter saturation voltage		$V_{BE(sat)}$	I_C = 50 mA; I_B = 1.25 mA	0.7		1.05	V
			I_C = 10 mA; I_B = 0.25 mA	0.6		0.85	V
Base to emitter voltage		$V_{BE(on)}$	I_C = 2 mA; V_{CE} = 5 V	0.55		0.75	V
Collector capacitance		C_{ob}	I_E = ie = 0; V_{CB} = 10 V; f = 1 MHz			4.5	pF
Transition frequency		f_T	I_C = 10 mA; V_{CE} = 5 V; f = 100 MHz	125			MHz
Noise figure		NF	I_C = 0.2 mA; V_{CE} = 5 V; R_G = 2 kΩ; f = 1 kHz			6	dB
Turn On Time		ton	I_C=10mA, I_{B1}=1mA			150	ns
Turn Off Time		toff	V_{BB}=3.6V, I_{B2}=1mA R_1=R_2=5KΩ , R_L=990Ω			800	ns

■ Marking

TYPE	BCW60A	BCW60B	BCW60C	BCW60D
Marking	AA	AB	AC	AD